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Ornamental Horticultural Employment Opportunities in Omaha, Nebraska

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ORNAMENTAL HORTICULTURAL EMPLOYMENT OPPORTUNITIES IN OMAHA, NEBRASKA

by

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ABSTRACT

Robert P. Kirwin, Jr. An Inventory of Ornamental Horticultural Employment Opportunities in Omaha, Nebraska. Thesis, M.S., 1970, Library, University of Nebraska, Lincoln.

Advisor. Dr. Roy D. Dillon

Purpose. The purpose of this study was to determine the ornamental horticultural employment opportunities in the metropolitan area of Omaha, Nebraska. The problem was defined in terms of the following objectives: (1) to identify employment opportunities by clusters of job titles or occupational areas; (2) to determine trends of occupational opportunities existing in the field of ornamental horticulture; and (3) to identify selected characteristics of employees in ornamental horticulture businesses: (a) level of education desired for future employees, and (b) ages of employees.

Methods. The region of study, or universe, was designated as Omaha, Nebraska. For purposes of this study, only those firms and businesses that used an Omaha mailing address were included in the universe.

The occupational family of ornamental horticulture was categorized on the basis of the major function of the firm. The seven categories were: (1) Wholesale Florists; (2) Retail Florists; (3) Landscape Service; (4) Golf Courses; (5) Tree Service; (6) Nurseryman; and (7) Retail Vendor of Nursery Stock.

Lists of firms and businesses were then compiled. Firms listed in categories 1 through 5 were taken from the yellow pages of the Omaha Telephone Directory, May 1969 edition. The firms listed in categories 6 and 7 were taken from the 1970 List of Nebraska Nurserymen, published by the Nebraska State Department of Agriculture, Bureau of Plant Industry. This list contains names of all firms and businesses that are commercially involved with producing and selling perennial plants.

All lists were cross checked to avoid duplications, and a table of random numbers was used to select a 25 percent random sample from each of these 7 categories. These firms and businesses were then contacted to obtain data.

The data collection instrument used combined features of questionnaires used by Blezek and Zikmund at the University of Nebraska, Meaders at Michigan State University, and Griffin at the University of Missouri.

Selected firms and businesses were then contacted to obtain data.

Findings. There will be an average annual increase of 58 full-time men employees and 12 full-time women employees between 1970 and 1975.

The largest number of new full-time employees will be in semi-skilled occupations, with 112 new full-time men employees needed between 1970 and 1975. The number of new full-time employees needed in professional occupations will

increase in the period 1970-1975 by 36 men and 44 women employees. The number of new full-time employees needed in skilled occupations will increase in the period 1970-1975 by 56 men employees. The number of new full-time employees needed in technical occupations will increase in the period 1970-1975 by 36 men and 4 women employees. The number of new full-time employees needed in sales occupations in the period 1970-1975 will increase by 20 men employees and decrease by 8 women employees. The number of new full-time employees needed in managerial occupations in the period 1970-1975 will increase by 8 men employees and 4 women employees.

There will be an average annual increase of 88 part-time men employees and 56 part-time women employees.

The largest number of new part-time employees will be needed in semi-skilled occupations, with 44 new part-time men employees needed between 1970 and 1975. The number of new part-time employees needed in professional occupations will increase in the period 1970-1975 by 16 men and 20 women employees. The number of new part-time employees needed in technical occupations will increase in the period 1970-1975 by 28 women employees. The number of new part-time employees needed in skilled occupations will increase in the period 1970-1975 by 24 men employees. The number of new part-time employees needed in sales occupations will increase in the 1970-1975 period by 4 men and 8 women

employees. The number of new part-time employees needed in managerial occupations will increase in the period 1970-1975 by 4 men employees.

A total of 64 persons employed were 61 years of age or over. Because these persons will probably retire at age 65, the replacement of these employees can be considered as employment opportunities.

A high majority of employers desired that employees have a high school education at almost all levels of employment.

The majority of employers indicated that they would cooperate with the local high school in providing a training program to prepare students for employment in ornamental horticultural occupations.

ACKNOWLEDGEMENTS

I wish to express my sincere gratitude for the help and guidance given by those who have helped in making the completion of this study a reality.

My sincere thanks to Professor Roy D. Dillon, of the Agricultural Education Department, University of Nebraska, Lincoln, Nebraska, not only for his guidance given on this study, but more importantly for his guidance given me during my graduate work.

Thanks are also due to all the owners and employees of the Ornamental Horticultural firms and businesses that co-operated in this study.

R.P.K.

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CHAPTER I

INTRODUCTION TO THE STUDY

Statement of the Problem

The purpose of this study was to determine the ornamental horticultural employment opportunities in the metropolitan area of Omaha, Nebraska.[1] The problem was defined in terms of the following objectives:

1. To identify employment opportunities by clusters of job titles or occupational areas.
2. To determine trends of occupational opportunities existing in the field of ornamental horticulture.
3. To identify selected characteristics of employees in ornamental horticulture businesses:
   a. Level of education desired for future employees.
   b. Ages of employees.

Definition of Terms

Agricultural Competency. Knowledge and skills of basic production agriculture which are required for initial employment or advancement within an occupation.

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[1]For purposes of this study, the term "metropolitan area" will refer only to that geographical area which contains the population using an Omaha mailing address.

Off-Farm Agricultural Occupation. An occupation other than farming in which the employee needs competencies in one or more of the primary areas of crop production, animal science, agricultural mechanics, soil science, or agricultural economics.

Occupational Area. A grouping of, or clustering of, job titles which have similar characteristics, functions, or require similar competencies.

Ornamental Horticulture. That industry which is involved in the propagation, production, and sale of plant materials used in the process of ornamentation. This area may also include the designing, planting, and maintenance of said material.

Professional.[2] All those persons whose occupation requires advanced academic training. This occupational area may include the following job titles:

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[2]The employment levels: Professional, Manager, Technical, Sales, Supervisory, Clerical, Skilled, Semi-Skilled, and Unskilled, are similar to those employment levels used in the following studies: C. M. Curtis and Anthony Mumphrey, "Occupational Opportunities and Training Needs of Youth for Non-Farm Agricultural Jobs in the Monroe-West Monroe Area," Baton Rouge: Louisiana State University, 1965, (Mimeographed); C. M. Curtis and C. L. Mondart, Sr., "Occupational Opportunities and Training Needs of Youth for Non-Farm Agricultural Jobs in the Baton Rouge Area," Baton Rouge: Louisiana State University, 1965, (Mimeographed); C. M. Curtis and J. H. Hutchinson, "Occupational Opportunities and Training Needs of Youth for Non-Farm Agricultural Jobs in the LaFayette Area," Baton Rouge: Louisiana State University, 1965, (Mimeographed); C. M. Curtis and J. H. Hutchinson, "Occupational Opportunities and Training Needs of Youth for Non-Farm Agricultural Jobs in the New Orleans Area," Baton Rouge: Louisiana State University, 1965, (Mimeographed); Homer Judge, "Employment Opportunities and Needed Competencies in Off-Farm Agricultural Occupations in Massachusetts," Boston: Massachusetts Department of Education, June, 1965.

Florist

Landscape Architect

Landscape Salesman

Entomologist

Nurseryman

Plant Pathologist

Manager.[3] That person who is involved in directing, supervising, and managing an ornamental horticultural operation and its employees. This occupational area may include the following job titles:

Floral Shop Manager

Garden Center Manager

Greenhouse Manager

Grounds Manager

Landclearing Manager

Landscape Garden Manager

Nursery Manager

Tree Service Manager

Retail Sales Manager

Manager of Chemical and Fertilizer Department

Nursery Stock and Trees Manager

Manager of Sodding Operations

Technical.[4] All those persons whose occupation requires advanced training. This occupational area may include the following job titles:

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[3] Ibid.

[4] Ibid.

Floral Designer

Florist

Landscape Designer

Landscape Technician

Nurseryman

Sales.[5] Those persons whose occupation involves selling horticultural products, or products in some way related to ornamental horticulture. This occupational area may include the following job titles:

Floral Salesman

Garden Center Salesman

Greenhouse Salesman

Nursery Salesman

Sod Salesman

Landscape Salesman

Supervisory.[6] Those persons whose occupation involves primary responsibility for management of a specific department or operation with an ornamental horticulture business. This occupational family may include the following job titles:

Floral Shop Supervisor

Garden Center Supervisor

Greenhouse Foreman

Grounds Supervisor

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[5] Ibid.

[6] Ibid.

Landscape Gardener

Municipal Park Supervisor

Nursery Foreman

Roadside Foreman

Top Soil Contracting Foreman

Tree Service Foreman

Sodding Foreman

Clerical.[7] Those persons whose occupation involves performing the bookkeeping, typing, shorthand, and other clerical or stenographic functions in an ornamental horticulture business. This occupational family may include the following job titles:

Floral Shop Bookkeeper

Garden Center Bookkeeper

Greenhouse Bookkeeper

Nursery Bookkeeper

Tree Service Bookkeeper

Sodding Company Bookkeeper

Skilled.[8] Those persons whose occupation involves the mastery of a specific skill. This occupational family may include the following job titles:

Floral Designer

Florist

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[7] Ibid.

[8] Ibid.

Greenhouse Grower

Grounds Equipment Operator

Grounds Keeper

Horticulturist

Landscape Planter

Landscape Worker

Nurseryman

Nursery Propagator

Greenhouse Propagator

Tree Pruner

Semi-Skilled.[9] Those persons whose occupation does not require the mastery of a specific skill. This occupational family may include:

Floral Shop Worker

Greenhouse, Floral Shop Worker

Deliveryman

Greenhouse Worker

Groundskeeper

Nursery and Landscape Worker

Truck Driver

Tree Service Groundsman

Wholesale Florists. This category includes all those firms involved in the sale of cut flowers, potted plants, and floral equipment to retail florists.

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[9] Ibid.

Retail Florists. This category includes all those firms involved in the sale of cut flowers, potted plants, and floral arrangements and accessories to consumers.

Nursery Stock. This term includes all field grown shade trees, fruit trees, ornamental shrubs and vines, raspberry, blackberry, and strawberry plants, grape vines, evergreens and perennials such as iris, peonies, phlox, tulip, and narcissus bulbs, and other perennial plants.

Nurserymen. This category includes all those firms licensed by the State of Nebraska to produce and wholesale nursery stock.

Retail Vendor of Nursery Stock. This category includes all those firms licensed by the State of Nebraska to retail nursery stock.

Tree Service. This category includes all those firms involved in tree spraying, tree trimming, pruning, and tree or bush removal.

Landscape Service. This category includes all those firms that plan, design, and perform all those services involved in the planting of nursery stock and sod around private homes, commercial businesses, etc.

Background of the Study

When programs of vocational agriculture were first initiated in the public school system, the term "vocational

agricultural education" was interpreted to mean that education designed to meet the needs of farmers or those persons who were planning to engage in farming. In fact, the Smith-Hughes Act, which initiated federally reimbursed vocational agricultural programs, limited vocational education programs in agriculture to those persons actually engaged in farming, or those people who anticipated becoming farmers.

Today "vocational agricultural education" has become a more inclusive term. This change can be seen in the Vocational Education Act of 1963, and its 1968 amendments. Section 10 (b) of the Vocational Education Act of 1963 provides that:

> Any amounts allotted (or apportioned) under such titles, act, or acts for agriculture may be used for vocational education in any occupation involving knowledge and skills in agricultural subjects, whether or not such occupation involves work of the farm or of the farm home, and such education may be provided without directed or supervised practice on a farm.[10]

The 1968 Amendments to the Vocational Education Act of 1963 further amplified the scope of vocational education. Section 101 states that:

> It is the purpose of this title to authorize Federal grants to states to assist them to maintain, extend, and improve existing programs of vocational education, to develop new programs of

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[10]Public Law 88-210, 88th Congress, H. R. 4955, December 18, 1963, Washington, D. C.: United States Government Printing Office, 1963, pp. 8-9.

> vocational education, and to provide part-time employment for youths who need the earnings from such employment to continue their vocational training on a full-time basis, so that persons of all ages in all communities of the State--those in high school, those who have completed or discontinued their formal education and are preparing to enter the labor market, those who have already entered the labor market but need to upgrade their skills or learn new ones, those with special educational handicaps, and those in post-secondary schools--will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training.[11]

The passage of the Vocational Education Act of 1963 and its 1968 amendments have stimulated much thought toward ways of expanding and improving instruction in vocational agricultural education. In an effort to expand and improve instruction in vocational agricultural education in a meaningful way, agricultural educators focused their attention on the educational and occupational needs of workers in occupations in which knowledge and skills in agriculture are needed. More specifically, attention was directed to: (1) determining the number of persons employed in off-farm agricultural occupations, (2) determining employment trends in these occupations, and (3) determining the agricultural knowledge and skill needs of these workers.

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[11]Public Law 90-576, 90th Congress, H. R. 18366, October 16, 1968, Washington, D. C.: United States Government Printing Office, 1968, p. 1.

One of the off-farm agricultural occupational families that has become the subject of much research in these three aforementioned areas is that of ornamental horticulture. Numerous studies have already been conducted to determine employee competencies required in the field of ornamental horticulture; and because these competencies are, with minor exceptions, essentially those needed by ornamental horticultural employees in all parts of the United States, it was not deemed necessary by the author to reassess the competencies needed by ornamental horticultural employees. Research conducted on the number of persons employed in ornamental horticulture occupations and employment trends in ornamental horticulture is also numerous. This research is of limited value, however, due to the fact that the number of persons employed, and employment trends, vary greatly from location to location. Because no research into the areas of numbers of persons employed in specific jobs in ornamental horticultural occupations and employment trends in ornamental horticulture has been reported in Nebraska, the author proposes to conduct such research.

This study will include only those firms using an Omaha, Nebraska, mailing address.

Significance of the Problem

Omaha, Nebraska, is located in the Central Region of the United States, between Chicago, Illinois (547 miles),

and Denver, Colorado (472 miles). Omaha has long held the reputation of being a center of both the grain and livestock trades, as well as a center of agricultural services.

Omaha has greatly increased in population. Between the years of 1950 and 1960, the population of Omaha increased from 251,117 to 301,598. This is an increase of 20.1 percent.[12] Omaha ranked 42 among U. S. cities according to population in 1960.[13]

Current estimates place the population of Omaha in 1970 at 396,200.[14]

Ornamental horticultural firms and services have also grown in number. Listings in the yellow pages of the Omaha Telephone Directory in the years 1960 and 1969 disclose the following facts:

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[12]U. S. Bureau of the Census, County and City Data Book, 1967, (A Statistical Abstract Supplement), Washington, D. C.: U. S. Government Printing Office, 1967, p. 594.

[13]Ibid., p. 576.

[14]Omaha City Directory 1970, Omaha, Nebraska: R. L. Polk Publishers, 1970, p. VIII.

Listing according to function	1960	1969
Number of Retail Florists	49	66
Number of Wholesale Florists	6	12
Number of Nurserymen	23	26
Number of Landscape Contractors	23	31
Number of Golf Courses	2	15
Number of Tree Services	24	35

NOTE: This does not consider that some firms might be multi-functional, that is, listed under several functions. For purposes of this illustration, such a distinction was not deemed necessary by the author.

As can be seen by the preceding figures, the number of firms involved in ornamental horticulture is increasing. This study seeks to define the growth of such firms consistent with the objectives previously defined. Currently there are no vocational agricultural education programs existing in the Omaha Public School Systems designed specifically to prepare students for entry level occupations in the off-farm agricultural occupational family of ornamental horticulture. This study is then a necessary step in the planning of such a program.

Research Related to the Problem

The literature revealed numerous studies completed in the area of off-farm agricultural occupations. Very few of the studies, however, were conducted exclusively in the occupational family of ornamental horticulture. A review

of the literature also revealed numerous completed studies which attempted to assess the competencies needed for entry into off-farm agricultural occupations.

With regard to employment opportunities existing in the area of ornamental horticulture, studies show that a number of such jobs exist for properly trained applicants. Blezek cited figures to indicate that in 15 horticultural firms there would be an annual need of 40 new employees during the next five years. Nearly every employer responding across all job categories indicated that a new employee should be a high school graduate. The majority of all employers indicated they would support a high school program for students of a horticulture class.[15]

Hoover, McClay, and Stevens, in a survey conducted in 29 Pennsylvania counties using agri-business firms as the population, found that of the 4,415 agricultural businesses and services, 1,403 were categorized in the area of ornamental horticulture. The firms responding to the questionnaire used by Hoover and others indicated that a total of 9,307 employees in ornamental horticulture needed agricultural competencies to gain initial employment or advance

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[15]Allen Blezek, "A Study of the Full-Time Horticultural Occupational Opportunities for a Two County Area of Southwestern Iowa." Unpublished Master's Thesis, Lincoln: University of Nebraska, 1969, pp. 68-71.

in their respective occupational area. It was further estimated that there would be a need for 4,211 new employees by the year 1971. Hoover and others also found that only 18 percent of the new employees who had less than a high school diploma were acceptable.[16]

Bailey, in a state-wide survey of all agencies employing non-farm agricultural employees in West Virginia, found that the 193 agencies falling under the category of ornamental horticulture employed 1,340 employees, and that they constituted 9.7 percent of the total non-farm agricultural employment.[17]

Stevenson conducted a study in Oklahoma which collected data from 719 different agricultural businesses in the state. The 719 businesses represented 38 percent of all agricultural businesses operating in Oklahoma. Of a total 9,499 employees possessing agricultural competencies for employment, 2,100 were employed by ornamental horticultural business firms. A total of 1,216 full-time employees will be needed in Oklahoma in the occupational family of ornamental horticulture in the next five years. At the same

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[16]Norman K. Hoover, David R. McClay, and Glen Z. Stevens, "Off-Farm Agricultural Occupations in Pennsylvania--Employment Opportunities and Technical Education Needs," University Park: Pennsylvania State University, 1966, (Mimeographed).

[17]Joseph K. Bailey, "Non-Farm Agricultural Employment in West Virginia with Implications for Vocational Education Programs," Charleston: Division of Vocational, Technical and Adult Education, January, 1965, p. 46, (Mimeographed).

time, 845 part-time employees will be needed. The study also indicated that 50 percent of the jobs available in off-farm agricultural occupations could be filled by persons with a high school education.[18]

Frier surveyed a total of 885 firms and establishments in an eleven-county area of Minnesota. Horticultural employers employed a total of 761 workers out of a total of 31,182 workers needing agricultural competencies. It was projected that 32 new employees were employed in the occupational family of horticulture during the past year, 32 more would be needed next year, and 90 during the next five years.[19] It was further reported that 69 percent of the employers interviewed preferred a high school graduate who had been enrolled in vocational agriculture courses while in high school.[20]

Agan conducted a study in Kansas in 1963 to determine non-farm agricultural employment opportunities. Employers interviewed in this study estimated 2,823 additional

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[18]William W. Stevenson, "A Study of Employment Opportunities and Training Needs in Off-Farm Agricultural Occupations in Oklahoma," Stillwater: Oklahoma State University, 1965, p. 12.

[19]Ernest E. Frier, "The Minnesota Agricultural Off-Farm Occupational Opportunities and Training Needs," Mankato, Minnesota: Mankato Area Vocational-Technical School, 1965, pp. 6-7, (Mimeographed).

[20]Ibid., p. 9.

employees would be needed in the next five years because of the growth of non-farm agricultural businesses.[21]

Griffin conducted a survey of 3,315 firms in Missouri that employed agriculturally-oriented personnel. Of these firms, 151 firms, or 4.55 percent, were categorized in the ornamental horticulture occupational family. It was further determined that these ornamental horticulture firms employed a total of 1,152 persons. Of these 1,152 persons, it was determined that 51.74 percent were agriculturally oriented with respect to function. Griffin also found that of the 3,315 firms interviewed, 2,287 were "willing to hire a high school student to work after school, on Saturdays, and/or during vacation periods, who is under the supervision of a school instructor, in order that he might learn more about this type of firm or occupations within this firm."[22] This is a very important consideration since many students in urban areas, without employers' cooperation, would not be afforded the opportunity of participating in a supervised occupational experience program.

Curtis and Mondart conducted research involving 1,067 agri-business industries, located in metropolitan areas of

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[21]Ray Agan, "A Study of Non-Farm Agricultural Occupations in Kansas," Manhattan: Kansas State University, 1963, (Mimeographed).

[22]Warren L. Griffin, "Agricultural Occupations Other Than Farming in Missouri," A Joint Staff Study, Columbia, Missouri: State Department of Education, Agricultural Education Department, and Teachers of Vocational Agriculture, 1964, (Mimeographed).

Louisiana, and included among recommendations: that training in off-farm agricultural occupations must include work experiences.[23]

Numerous studies have been conducted to assess competencies for entry into off-farm agricultural occupations. Dillon and Cain completed a study to determine the employment opportunities and agricultural competencies needed by workers in present and emerging non-farm agricultural occupations in a 38 county area in the Appalachian region. The investigation revealed that 40 percent of all workers employed in non-farm agricultural businesses need some knowledge and skills in agriculture. Two and one-half times more agricultural workers with high school vocational-level training will be needed than agricultural technicians with post-high school training to fill entry-level positions in the next five years. Employers expected a 40 percent increase in the number of employees needing technical competencies in agriculture in the next five years. The study showed that employers had been willing to hire untrained persons under 20 years of age and train these people in technical skills on-the-job; but indicated that they would

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[23]C. L. Mondart and C. M. Curtis, "Occupational Opportunities and Training Needs for Non-Farm Agricultural Jobs in the Metropolitan Areas of Louisiana," Baton Rouge: Louisiana State University, 1965, (Mimeographed).

rather hire and pay a higher wage to trained technical workers if they were available.[24]

Peterson designed a status survey of the need for agricultural knowledge and skills by a sample of employed workers in the two metropolitan Nebraska counties--Lancaster, which includes Lincoln; and Douglas, which includes Omaha. The study attempted to identify areas of knowledge and skills needed by workers rather than the degree of knowledge and skill required. Fifty-four, or 12.2 percent, of the employed male metropolitan workers were identified as "Associated Agricultural Workers." Eighty-eight, or 20.0 percent, of the male metropolitan workers were identified as persons only employed in agricultural knowledge and skills.[25]

Dillon conducted a study in northeast Illinois near Chicago. The populations selected for the study included 58 licensed nurseries and 39 licensed ornamental horticultural businesses. The purpose of the study was to determine whether separate and specialized agriculture courses are needed for: (1) workers in nurseries and workers in ornamental horticulture businesses; (2) workers in each of the

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[24]Roy D. Dillon and Paul S. Cain, "Employment Opportunities and Useable Agricultural Skills in Non-Farm Agricultural Occupations in Appalachia," Morehead, Kentucky: Morehead State University, 1966, (Mimeographed).

[25]Roland L. Peterson, "Indications of Agricultural Knowledge and Skills Areas Needed by a Sample of Workers in Two Metropolitan Nebraska Counties," Unpublished Master's Thesis, Lincoln: University of Nebraska, 1967.

primary job titles in nurseries--general director, salesman, supervisor, and field worker; and (3) workers in each of the primary job titles in ornamental horticulture businesses--general director, salesman, supervisor, and field worker.[26] Recommendations pointed to the necessity of establishing two types of courses for workers in both licensed nurseries and licensed ornamental horticulture businesses. These courses were: (1) basic courses containing content needed by all the persons preparing to enter horticultural jobs; and (2) specialized courses containing items of knowledge in agriculture needed by workers in one, two, or three job titles, but not needed by all workers in licensed nurseries or licensed ornamental horticulture businesses. These specialized courses were to be for persons who: (1) are near the end of a one-year or two-year curriculum in horticultural technology, or (2) are employed in horticultural jobs and desire to up-grade their abilities in horticultural technology.[27]

Participants at an Ohio State University Workshop held in 1966 identified various abilities to be developed in the area of ornamental horticulture. In the area of fruits and vegetables they listed 18 abilities to be developed. In the area of landscaping they listed 28

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[26]Roy D. Dillon, "Comparison of Certain Abilities Needed by Workers in Licensed Nurseries and Licensed Ornamental Horticulture Businesses," Unpublished Doctoral Thesis, Champaign-Urbana: University of Illinois, 1965, p. 1.

[27]Ibid., p. 201.

abilities to be developed. In the area of floriculture they listed 16 abilities to be developed. In the area of horticultural soils they listed 12 abilities to be developed. And in the area of processing and distribution they listed 21 abilities to be developed.[28]

The review of related research indicates that employment opportunities do exist in the occupational family of ornamental horticulture. Research findings regarding competencies indicate that basic instruction may be provided at the high school level to train students for entry-level employment in the field of ornamental horticulture.

Very few studies have been conducted to determine employment opportunities in off-farm agricultural occupations in the state of Nebraska. Zikmund[29] conducted a study dealing with employment opportunities in the retail farm machinery industry in Nebraska. Siekman[30] conducted a similar study dealing with employment opportunities in the grain and feed industry in Nebraska. Currently research

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[28]Ralph J. Woodin, "Teaching Vocational Horticulture," Columbus: The Ohio State University, 1966, (Mimeographed).

[29]Dale G. Zikmund, "Employment Opportunities in the Retail Farm Machinery Industry in Nebraska," Unpublished Master's Thesis, Lincoln: University of Nebraska, 1967.

[30]Darrel D. Siekman, "Employment Opportunities in the Grain and Feed Industry in Nebraska," Unpublished Master's Thesis, Lincoln: University of Nebraska, 1968.

is being conducted by the Nebraska Coordinating Unit for Vocational Education[31] to determine occupational opportunities in Nebraska. Data used for this research is collected from a three percent state-wide random sample of firms and businesses. Based on such a sample, the Nebraska Coordinating Unit for Vocational Education, in its 1969 report, projected a state-wide need of 567 employees in the ornamental horticulture industry for the next year. None of the above mentioned studies, conducted in Nebraska, have dealt specifically with employment opportunities in the ornamental horticulture industry. This study seeks to extend and amplify such research to include employment opportunities in the ornamental horticulture industry in Omaha, Nebraska.

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[31]Nebraska Research Coordinating Unit for Vocational Education, Occupational Opportunities in Nebraska, Lincoln: University of Nebraska, 1969.

CHAPTER II

THE DESIGN OF THE STUDY

This study was designed as a descriptive survey of the employment opportunities in the ornamental horticulture industry in Omaha, Nebraska.

The Selection of the Sample

The region of study, or universe, was designated as Omaha, Nebraska. For purposes of this study, only those firms and businesses that used an Omaha mailing address were included in the universe.

The occupational family of ornamental horticulture was categorized on the basis of the major function of the firm. The seven categories were:

1. Wholesale Florists
2. Retail Florists
3. Landscape Service
4. Golf Courses
5. Tree Service
6. Nurseryman
7. Retail Vendor of Nursery Stock

Lists of firms and businesses were then compiled. Firms listed in categories 1 through 5 were taken from the yellow pages of the Omaha Telephone Directory, May 1969 edition. The firms listed in categories 6 and 7 were taken

from the 1970 List of Nebraska Nurserymen published by the Nebraska State Department of Agriculture, Bureau of Plant Industry. This list contains names of all firms and businesses that are commercially involved with producing and selling perennial plants.

All lists were cross checked to avoid duplications. This was done to insure that no firm be included in more than one category. In cases of multi-functional firm listings, Clark Jensen, Area Extension Specialist in Horticulture, was consulted; and based on his knowledge of the firms in question, they were included in the categories which best represented their major function.

A table of random numbers was used to select a 25 percent random sample from each of these 7 categories. These firms and businesses were then contacted to obtain data.

The Preparation of the Instrument

The data collection instrument used combined features of questionnaires used by Blezek and Zikmund at the University of Nebraska, Meaders at Michigan State University, and Griffin at the University of Missouri. The instrument was pre-tested on five randomly selected ornamental horticulture firms not included in the sample used in the study. After appropriate adjustments were made, the data collection instrument was then implemented for purposes of this study.

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The instrument provided for the collection of the following information:

1. Number of full-time employees five years ago, number presently employed, and anticipated employment by 1975 due to retirement, expansion, employee turnover, and promotions.
2. Number of part-time employees five years ago, number presently employed, and anticipated employment by 1975 due to retirement, expansion, employee turnover, and promotions.
3. Ages of present employees in each job category.
4. Minimum level of education preferred by employers for employment in each job category.
5. Degree of participation employers are willing to demonstrate regarding training programs for prospective employees.

The questionnaire is included as Exhibit A in the Appendix.

The Presentation and Analysis of the Data

The data to be collected will be presented in table and chart form. Where projection of employment opportunities is required, the following formula will be used:

$$\frac{\text{No. of respondents}}{\text{No. of firms listed in category X}} = \text{Percent of respondents in relation to the population of category X}$$

$$\frac{100}{\text{Percent of respondents in relation to the population of category X}} = \text{Factor for category X}$$

$$\text{Factor for category X} \times \text{No. of employees in sample of category X} = \text{Projected number of employees for total population}$$

CHAPTER III

THE PRESENTATION AND ANALYSIS OF THE DATA

The total number of persons currently employed in ornamental horticultural occupations are shown in Table 1. The basic data are shown in Exhibit B in the Appendix. The data presented are based on persons employed in the seven ornamental horticultural product or service categories of retail florist, wholesale florist, landscape service, golf course, tree service, retail vendor of nursery stock, and nurseryman.

The data presented are based on the employer responses of a randomly selected 25 percent sample that was stratified prior to selection according to ornamental horticultural product or service category. All employers within this 25 percent stratified random sample were personally interviewed. All projections to the total population were made by multiplying the raw data by a factor of 4.0. There were a total of 208 firms in this study.

These 208 firms employed an estimated 1,508 persons in 1970. Retail florists employed 408 persons, an average of 7.6 persons per firm; retail vendors of nursery stock employed 404 persons, an average of 5.9 persons per firm; landscape services employed 212 persons, an average of 17.6 persons per firm; nurserymen employed 196 persons, an average of 8.1 persons per firm; golf courses employed 116 persons, an average of 7.2 persons per firm; tree services employed 116

TABLE 1

NUMBER OF FIRMS INTERVIEWED, PROJECTED TOTAL NUMBER OF FIRMS, AND PROJECTED TOTAL NUMBER OF PERSONS EMPLOYED IN ORNAMENTAL HORTICULTURAL OCCUPATIONS, BY MAIN ORNAMENTAL HORTICULTURAL PRODUCT OR SERVICE CATEGORY, IN METROPOLITAN OMAHA

Ornamental Horticultural Product or Service Category	Number of Firms Interviewed	Projected Total Number of Firms	Projected Total Number of Persons Currently Employed in Ornamental Horticultural Occupations
Retail Florist	13	52	408
Wholesale Florist	2	8	56
Landscape Service	3	12	212
Golf Course	4	16	116
Tree Service	7	28	116
Retail Vendor of Nursery Stock	17	68	404
Nurseryman	6	24	196
TOTALS	52	208	1,508

persons, an average of 4.1 persons per firm; and wholesale florists employed 56 persons, an average of 7.0 persons per firm.

The data in Table 2 (see Exhibit B in the Appendix for basic data) show the trend of employment in the firms studied in the last five years, at the present, and in the next five years, for full-time employees by ornamental horticultural product or service category. Five years ago there were 580 men and 148 women employed by the firms in this study. The figure increased to 820 men and 244 women employed full-time by 1970, an increase of 240 men and 96 women. These firms anticipated hiring 288 men and 60 women due to expansion, turnover, and promotion in the next five years or 1975. A steady increase in the number of full-time men employees is indicated from five years ago to 1975. Data also show that such is not the case for full-time women employees. There will be an increase of 52 women full-time employees between now and 1975, but it will not be as great as the increase of 96 full-time women employees between 1965 and 1970. Retail florists show the greatest increase with 72 men and 52 full-time women employees needed by 1975, or a total of 124 new full-time employees needed by 1975.

Landscape services also show an increase with 100 new full-time men employees needed by 1975. Tree services will need 48 new full-time men employees by 1975. Retail vendors

TABLE 2

PROJECTED NUMBER OF FULL-TIME MEN AND WOMEN EMPLOYEES NEEDING ORNAMENTAL HORTICULTURAL COMPETENCIES EMPLOYED IN 1965, CURRENTLY, AND ESTIMATED NUMBER OF EMPLOYEES NEEDED DUE TO EXPANSION, PROMOTION, AND TURNOVER DURING THE NEXT FIVE YEARS, BY MAIN ORNAMENTAL HORTICULTURAL PRODUCT OR SERVICE CATEGORY, IN METROPOLITAN OMAHA

Ornamental Horticultural Product or Service Category	Full-Time Employees Needing Ornamental Horticultural Competencies							
	1965		Current 1970		1975		Employees Needed in Next Five Years[a]	
	M	W	M	W	M	W	M	W
Retail Florist	180	112	192	164	264	216	72	52
Wholesale Florist	32	4	24	12	28	12	4	0
Landscape Service	128	12	192	16	292	16	100	0
Golf Course	48	0	88	0	116	0	28	0
Tree Service	88	4	60	0	108	0	48	0
Retail Vendor of Nursery Stock	76	8	232	48	268	48	36	4
Nurseryman	28	8	32	4	32	8	0	4
TOTALS	580	148	820	244	1,108	296	288	60

[a] Employees needed in the next five years due to expansion, promotion, and turnover.

of nursery stock anticipate hiring 36 new full-time men employees by 1975. Golf courses anticipate hiring 28 new full-time men employees by 1975. Wholesale florists anticipate hiring 4 new full-time men employees by 1975. Nurserymen anticipate hiring 4 new women full-time employees by 1975.

Table 3 (basic data are shown in Exhibit C in the Appendix) shows employment trends for full-time employees by occupational title and level of employment. In 1965 52 men and 40 women were employed in professional occupations. Between 1965 and 1970 the number of full-time men employed in professional occupations increased to 60, while the number of full-time women employed at this level decreased to 28. By 1975 employers anticipate 96 full-time men employees and 72 women employees engaged at this level of employment or increases of 36 men full-time employees and 44 women employees. Occupational titles that show an increase between 1970 and 1975 are: florist, with an increase of 20 men and 40 women; landscape architect, with an increase of 8 men; landscape salesman, with an increase of 8 men; and nurseryman, with an increase of 4 women.

In 1965 104 men full-time employees and 4 full-time women employees were employed at a managerial level of employment. The number of men employed at this level increased to 144 by 1970, while the number of women employed at this level decreased to 0. Employers estimated that in 1975,

TABLE 3

PROJECTED NUMBER OF FULL-TIME EMPLOYEES IN ORNAMENTAL HORTICULTURAL BUSINESSES NEEDING ORNAMENTAL HORTICULTURAL COMPETENCIES BY OCCUPATIONAL TITLE, 1965, CURRENTLY, AND ESTIMATED NUMBER OF EMPLOYEES NEEDED DUE TO EXPANSION, TURNOVER, AND PROMOTION DURING THE NEXT FIVE YEARS IN METROPOLITAN OMAHA

Occupational Title	1965		Current 1970		1975		Needed	
	M	W	M	W	M	W	M	W
Professional Occupations								
Florist	52	40	48	28	68	68	20	40
Landscape Architect	0	0	0	0	8	0	8	0
Landscape Salesman	0	0	12	0	20	0	8	0
Entomologist	0	0	0	0	0	0	0	0
Nurseryman	0	0	0	0	0	4	0	4
Plant Pathologist	0	0	0	0	0	0	0	0
Subtotals	52	40	60	28	96	72	36	44
Managerial Occupations								
Floral Shop Manager	24	4	32	0	32	0	0	0
Garden Center Manager	8	0	20	0	24	4	4	4
Greenhouse Manager	12	0	12	0	12	0	0	0
Grounds Manager	4	0	8	0	8	0	0	0
Landclearing Manager	0	0	0	0	0	0	0	0
Landscape Garden Manager	4	0	4	0	4	0	0	0
Nursery Manager	8	0	12	0	12	0	0	0
Tree Service Manager	20	0	24	0	28	0	4	0
Retail Sales Manager	0	0	0	0	0	0	0	0

TABLE 3 (continued)

Occupational Title	1965 M	1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Managerial Occupations (continued)								
Manager of Chemical and Fertilizer Department	12	0	16	0	12	0	-4	0
Nursery Stock and Trees Manager	0	0	0	0	0	0	0	0
Manager of Sodding Operation	12	0	16	0	20	0	4	0
Subtotals	104	4	144	0	152	4	8	4
Sales Occupations								
Floral Salesman	12	28	28	44	28	44	0	0
Garden Center Salesman	36	4	72	36	76	28	4	-8
Nursery Salesman	12	4	28	4	28	4	0	0
Sod Salesman	0	0	0	0	12	0	12	0
Landscape Salesman	4	0	4	0	8	0	4	0
Subtotals	64	36	132	84	152	76	20	-8
Supervisory Occupations								
Floral Shop Supervisor	4	0	4	0	4	0	0	0
Garden Center Supervisor	12	0	16	0	16	0	0	0
Greenhouse Foreman	4	0	8	0	12	0	4	0
Grounds Supervisor	8	0	16	0	16	0	0	0
Landscape Gardener	12	0	20	0	32	0	12	0
Municipal Park Supervisor	0	0	0	0	0	0	0	0
Nursery Foreman	8	0	12	0	16	0	4	0
Subtotals	48	0	76	0	96	0	20	0

TABLE 3 (continued)

Occupational Title	1965 M	1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Clerical Occupations								
Floral Shop Bookkeeper	0	12	4	8	4	8	0	0
Garden Center Bookkeeper	4	4	4	4	4	4	0	0
Greenhouse Bookkeeper	0	4	0	4	0	4	0	0
Nursery Bookkeeper	0	0	0	8	0	8	0	0
Tree Service Bookkeeper	0	4	0	0	0	0	0	0
Sodding Company Bookkeeper	0	8	0	12	0	12	0	0
Subtotals	4	32	8	36	8	36	0	0
Skilled Occupations								
Floral Designer	0	0	0	0	0	0	0	0
Florist	0	0	0	0	0	0	0	0
Greenhouse Grower	0	0	0	0	0	0	0	0
Grounds Equipment Operator	28	0	32	0	52	0	20	0
Groundskeeper	20	0	48	0	64	0	16	0
Horticulturalist	0	0	4	0	4	0	0	0
Landscape Worker	0	0	0	0	0	0	0	0
Nurseryman	4	4	8	4	16	4	8	0
Nursery Propagator	4	0	0	0	0	0	0	0
Greenhouse Propagator	0	0	0	0	0	0	0	0
Tree Pruner	12	0	16	0	28	0	12	0
Subtotals	68	4	108	4	164	4	56	0

TABLE 3 (continued)

Occupational Title	1965 M	1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Semi-Skilled Occupations								
Floral Shop Worker	0	8	0	12	0	20	0	8
Greenhouse Floral Shop Worker	0	0	0	0	0	0	0	0
Deliveryman	0	0	4	0	8	0	4	0
Greenhouse Worker	8	0	0	0	0	0	0	0
Groundskeeper	0	0	0	0	0	0	0	0
Nursery and Landscape Worker	68	0	96	0	140	0	44	0
Truck Driver	76	0	88	0	116	0	28	0
Tree Service Groundsman	8	0	16	0	52	0	36	0
Subtotals	160	8	204	12	316	20	112	8
Technical Occupations								
Floral Designer	64	24	68	80	104	84	36	4
Florist	0	0	0	0	0	0	0	0
Landscape Designer	0	0	0	0	0	0	0	0
Landscape Technician	0	0	0	0	0	0	0	0
Nurseryman	16	0	20	0	20	0	0	0
Subtotals	80	24	88	80	124	84	36	4
TOTALS	580	148	820	244	1108	296	288	60

152 full-time men and 4 full-time women will be employed at this level. Occupational titles that show an increase in numbers of employees between 1970 and 1975 are: garden center manager, with an increase of 4 men and 4 women; tree service manager, with an increase of 4 men; and manager of a sodding operation, with an increase of 4 men. One occupational title will decrease in numbers employed: manager of chemical and fertilizer department will be decreased in numbers by an estimated 4 full-time men between 1970 and 1975.

In 1965 64 full-time men and 36 full-time women were employed in sales occupations. This number increased to 132 full-time men and 84 full-time women in 1970. Employers estimate the number of full-time men employed at such a level to be 152, and the number of women similarly employed to be 76, in 1975. This would be an increase of 20 full-time men employees and a decrease of 8 women employees. Occupational titles showing increases between 1970 and 1975 are: sod salesman, with an increase of 12 full-time men employees; and landscape salesman, with an increase of 4 full-time men employees. The occupational title of garden center salesman also shows an increase of 4 full-time men employees, but a decrease of 8 full-time women employees between 1970 and 1975.

In 1965 48 full-time men and no full-time women were employed at supervisory levels of employment. The number of full-time men employed at such a level increased to 76

152 full-time men and 4 full-time women will be employed at this level. Occupational titles that show an increase in numbers of employees between 1970 and 1975 are: garden center manager, with an increase of 4 men and 4 women; tree service manager, with an increase of 4 men; and manager of a sodding operation, with an increase of 4 men. One occupational title will decrease in numbers employed: manager of chemical and fertilizer department will be decreased in numbers by an estimated 4 full-time men between 1970 and 1975.

In 1965 64 full-time men and 36 full-time women were employed in sales occupations. This number increased to 132 full-time men and 84 full-time women in 1970. Employers estimate the number of full-time men employed at such a level to be 152, and the number of women similarly employed to be 76, in 1975. This would be an increase of 20 full-time men employees and a decrease of 8 women employees. Occupational titles showing increases between 1970 and 1975 are: sod salesman, with an increase of 12 full-time men employees; and landscape salesman, with an increase of 4 full-time men employees. The occupational title of garden center salesman also shows an increase of 4 full-time men employees, but a decrease of 8 full-time women employees between 1970 and 1975.

In 1965 48 full-time men and no full-time women were employed at supervisory levels of employment. The number of full-time men employed at such a level increased to 76

by 1970, and employers estimate a total of 96 men employed at this level by 1975. This is an increase of 20 full-time men employees between 1970 and 1975. No women were reported working at this level in 1970 and none were estimated by employers to be working at this level in 1975. Occupational titles that will be increasing in the number of full-time men employed at the supervisory level between 1970 and 1975 are: greenhouse foreman will increase by 4 full-time men employees; landscape gardener will increase by 12 full-time employees; and nursery foreman will increase by 4 full-time employees.

Clerical occupations are occupied mainly by women. In 1965 4 full-time men and 32 full-time women were employed at this level of employment. These numbers increased to 8 full-time men and 36 full-time women employees in 1970. Employers anticipate hiring no new employees with occupational titles at this level of employment by 1975.

In 1965 employers reported 68 full-time men and 4 full-time women employed in skilled occupations. The number of full-time men employed in such occupations increased to 108 in 1970, while the number of full-time women employed in these occupations remained the same. Employers anticipate the number of full-time men employed in skilled occupations to increase to 164 in 1975, an increase of 56 full-time men employees. Employers do not, however, anticipate the number of women employed in skilled occupations full-time to increase by 1975. The increases in full-time men employees

between 1970 and 1975 will be in the occupational titles of: grounds equipment operator, an increase of 20 full-time employees; groundskeeper, an increase of 16 full-time employees; nurseryman, an increase of 8 full-time employees; and tree pruner, an increase of 12 full-time employees.

In 1965 employers reported 160 full-time men employees and 8 full-time women employees working in semi-skilled occupations. This number increased in 1970 to 204 full-time men employees and 12 full-time women employees. Employers anticipate 316 full-time men employees and 20 women employees to be working at this level in 1975. This would be an increase of 112 full-time men employees and 8 full-time women employees by 1975. Occupational titles which will increase in number between 1970 and 1975 are: floral shop worker, with an increase of 8 full-time women employees; deliveryman, with an increase of 4 full-time men employees; nursery and landscape worker, with an increase of 44 full-time men employees; truck driver, with an increase of 28 full-time men employees; and tree service groundsman, with an increase of 36 full-time men employees.

Employers reported 80 full-time men and 24 full-time women employed in technical occupations in 1965. This number of employees increased to 88 full-time men and 80 full-time women in 1970. Employers anticipate 124 full-time men and 84 full-time women employees working in technical occupations in 1975, for an increase between 1970

and 1975 of 36 full-time men employees and 4 full-time women employees. The occupational title in which employee numbers will increase between 1970 and 1975 is: floral designer, with increases of 36 full-time men employees and 4 full-time women employees.

The largest increases in full-time employee numbers between 1970 and 1975 will be in the semi-skilled occupations, with increases of 112 full-time men employees and 8 full-time women employees. Second are the professional occupations, with increases between 1970 and 1975 of 36 full-time men employees and 44 women employees. Skilled occupations will increase in full-time employee numbers between 1970 and 1975 by 56 full-time men employees. Technical occupations will increase in full-time employee numbers between 1970 and 1975 by 36 full-time men employees and 4 full-time women employees. Sales occupations will increase in full-time men employee numbers between 1970 and 1975 by 20 full-time men employees, but will decrease in full-time women employee numbers by 8 full-time women employees. Supervisory occupations will increase in full-time men employee numbers by 20 full-time men between 1970 and 1975, but there will be no increase in full-time women employees. Managerial occupations will increase in employee numbers between 1970 and 1975 by 8 full-time men employees and 4 full-time women employees. Clerical occupations will not increase in employee numbers between 1970 and 1975, but will remain the same.

The data in Table 4 (see Exhibit D in Appendix for basic data) show the trend of employment in the firms studied in the last five years, at the present, and in the next five years, for part-time employees, by ornamental horticultural product or service category.. Five years ago there were 196 men and 76 women employed part-time by the firms in this study. The figure increased to 340 men and 104 women employed part-time by 1970, for an increase of 144 men and 28 women. These firms anticipate hiring 88 part-time men and 56 part-time women due to expansion, turnover, and promotion in the next five years, or 1975. A steady increase in the number of part-time men and women employees needed for work in ornamental horticultural occupations is apparent. Retail florists show the greatest increase between 1970 and 1975, with 8 men and 48 women part-time employees needed by 1975, or a total of 56 new part-time employees. Nurserymen anticipate hiring 24 part-time men employees by 1975. Retail vendors of nursery stock anticipate hiring 16 part-time men employees and 8 part-time women employees by 1975. Landscape services anticipate hiring 12 part-time men employees by 1975. Golf courses have anticipated hiring 12 part-time men employees by 1975. Tree services and wholesale florists have anticipated hiring 8 part-time men employees each by 1975, for a total of 16 new employees.

TABLE 4

PROJECTED NUMBER OF PART-TIME MEN AND WOMEN EMPLOYEES NEEDING ORNAMENTAL HORTICULTURAL COMPETENCIES EMPLOYED IN 1965, CURRENTLY, AND ESTIMATED NUMBER OF EMPLOYEES NEEDED DUE TO EXPANSION, PROMOTION, AND TURNOVER DURING THE NEXT FIVE YEARS, BY MAIN ORNAMENTAL HORTICULTURAL PRODUCT OR SERVICE CATEGORY, IN METROPOLITAN OMAHA

Ornamental Horticultural Product or Service Category	Part-Time Employees Needing Ornamental Horticultural Competencies							
	1965		Current 1970		1975		Employees Needed in Next Five Years[a]	
	M	W	M	W	M	W	M	W
Retail Florist	4	32	8	44	16	92	8	48
Wholesale Florist	12	0	12	8	20	8	8	0
Landscape Service	4	0	4	0	16	0	12	0
Golf Course	8	0	28	0	40	0	12	0
Tree Service	44	0	56	0	64	0	8	0
Retail Vendor of Nursery Stock	52	20	96	28	112	36	16	8
Nurseryman	72	24	136	24	160	24	24	0
TOTALS	196	76	340	104	428	160	88	56

[a] Employees needed in the next five years due to expansion, promotion, and turnover.

Table 5 (see Exhibit E in the Appendix for basic data) shows employment trends of part-time employees by occupational title and level of employment.

There were no part-time men or women employees occupying positions at a professional level of employment in 1965 or 1970 in Omaha, Nebraska. Employers estimate hiring 16 part-time men employees and 20 part-time women employees by 1975, for increases of 16 part-time men employees and 20 part-time women employees between 1970 and 1975. Occupational titles in which part-time employee numbers will increase include: florists, with an increase of 12 part-time men employees and 20 part-time women employees between 1970 and 1975; and nurseryman, with an increase of 4 part-time men employees in this same period.

In 1965 employers reported 12 part-time men employees employed in managerial occupations; this number of employees remained the same in 1970. Employers anticipate hiring 4 additional part-time men employees by 1975, which would bring to 16 the number of men employed part-time at managerial levels of employment. Employers reported no part-time women employees at managerial levels of employment in 1965 or 1970; they anticipate no changes by 1975. Employers anticipate hiring 4 new additional part-time men employees in the occupational title of graden center manager between 1970 and 1975.

TABLE 5

PROJECTED NUMBER OF PART-TIME EMPLOYEES IN ORNAMENTAL HORTICULTURAL BUSINESSES NEEDING ORNAMENTAL HORTICULTURAL COMPETENCIES BY OCCUPATIONAL TITLE, 1965, CURRENTLY, AND ESTIMATED NUMBER OF EMPLOYEES NEEDED DUE TO EXPANSION, TURNOVER, AND PROMOTION DURING THE NEXT FIVE YEARS IN METROPOLITAN OMAHA

Occupational Title	1965		Current 1970		1975		Needed	
	M	W	M	W	M	W	M	W
Professional Occupations								
Florist	0	0	0	0	12	20	12	20
Landscape Architect	0	0	0	0	0	0	0	0
Landscape Salesman	0	0	0	0	0	0	0	0
Entomologist	0	0	0	0	0	0	0	0
Nurseryman	0	0	0	0	4	0	4	0
Plant Pathologist	0	0	0	0	0	0	0	0
Subtotals	0	0	0	0	16	20	16	20
Managerial Occupations								
Floral Shop Manager	0	0	0	0	0	0	0	0
Garden Center Manager	0	0	0	0	4	0	4	0
Greenhouse Manager	0	0	0	0	0	0	0	0
Grounds Manager	0	0	0	0	0	0	0	0
Landclearing Manager	0	0	0	0	0	0	0	0
Landscape Garden Manager	0	0	0	0	0	0	0	0
Nursery Manager	0	0	0	0	0	0	0	0
Tree Service Manager	12	0	12	0	12	0	0	0
Retail Sales Manager	0	0	0	0	0	0	0	0

TABLE 5 (continued)

Occupational Title	1965 M	1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Managerial Occupations (continued)								
Manager of Chemical and Fertilizer Department	0	0	0	0	0	0	0	0
Nursery Stock and Trees Manager	0	0	0	0	0	0	0	0
Manager of Sodding Operation	0	0	0	0	0	0	0	0
Subtotals	12	0	12	0	16	0	4	0
Sales Occupations								
Floral Salesman	0	0	12	16	16	16	4	0
Garden Center Salesman	32	8	56	16	48	24	-8	8
Nursery Salesman	20	12	28	12	36	12	8	0
Sod Salesman	0	0	0	0	0	0	0	0
Landscape Salesman	0	0	0	0	0	0	0	0
Subtotals	52	20	96	44	100	52	4	8
Supervisory Occupations								
Floral Shop Supervisor	0	0	0	0	0	0	0	0
Garden Center Supervisor	0	0	0	0	0	0	0	0
Greenhouse Foreman	0	0	0	0	0	0	0	0
Grounds Supervisor	0	0	0	0	0	0	0	0
Landscape Gardener	0	0	0	0	0	0	0	0
Municipal Park Supervisor	0	0	0	0	0	0	0	0
Nursery Foreman	0	0	0	0	0	0	0	0
Subtotals	0	0	0	0	0	0	0	0

TABLE 5 (continued)

Occupational Title	1965 M	1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Clerical Occupations								
Floral Shop Bookkeeper	0	0	0	0	0	0	0	0
Garden Center Bookkeeper	0	0	0	0	0	0	0	0
Greenhouse Bookkeeper	0	0	0	0	0	0	0	0
Nursery Bookkeeper	0	0	0	0	0	0	0	0
Tree Service Bookkeeper	4	0	4	0	4	0	0	0
Sodding Company Bookkeeper	0	0	0	0	0	0	0	0
Subtotals	4	0	4	0	4	0	0	0
Skilled Occupations								
Floral Designer	0	0	0	0	0	0	0	0
Florist	0	0	0	0	0	0	0	0
Greenhouse Grower	0	0	0	0	0	0	0	0
Grounds Equipment Operator	12	0	32	0	48	0	16	0
Groundskeeper	0	0	0	0	0	0	0	0
Horticulturalist	4	4	4	4	4	4	0	0
Landscape Worker	0	0	0	0	0	0	0	0
Nurseryman	0	0	0	0	0	0	0	0
Nursery Propagator	0	24	0	24	0	24	0	0
Greenhouse Propagator	0	0	0	0	0	0	0	0
Tree Pruner	16	0	20	0	28	0	8	0
Subtotals	32	28	56	28	80	28	24	0

TABLE 5 (continued)

Occupational Title	1965 M	1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Semi-Skilled Occupations								
Floral Shop Worker	0	4	0	4	0	4	0	0
Greenhouse Floral Shop Worker	0	0	0	0	0	0	0	0
Deliveryman	0	0	0	0	0	0	0	0
Greenhouse Worker	12	0	12	0	20	0	8	0
Groundskeeper	0	0	0	0	0	0	0	0
Nursery and Landscape Worker	68	0	132	0	168	0	36	0
Truck Driver	4	0	4	0	4	0	0	0
Tree Service Groundsman	8	0	16	0	16	0	0	0
Subtotals	92	4	164	4	208	4	44	0
Technical Occupations								
Floral Designer	4	24	8	28	8	56	0	28
Florist	0	0	0	0	0	0	0	0
Landscape Designer	0	0	0	0	0	0	0	0
Landscape Technician	0	0	0	0	0	0	0	0
Nurseryman	0	0	0	0	0	0	0	0
Subtotals	4	24	8	28	8	56	0	28
TOTALS	196	76	340	104	428	160	88	56

Employers reported 52 part-time men and 20 part-time women employed in sales occupations in 1965. The number of part-time employees employed at this level of employment increased to 96 part-time men and 44 part-time women by 1970, an increase of 44 part-time men employees and 24 part-time women employees respectively. Employers anticipate employing a total of 100 part-time men and 52 part-time women in sales occupations by 1975; this would be an increase of part-time employee numbers between 1970 and 1975 of 4 men and 8 women. Occupational titles in which employee numbers will increase between 1970 and 1975 are: floral salesman, with an increase of 4 part-time men employees; nursery salesman, with an increase of 8 part-time men employees.

The occupational title of garden center manager will increase between 1970 and 1975 in the number of part-time women employees by 8 persons, but the number of part-time men similarly employed will decrease by 8 persons.

In 1965 employers reported no part-time men or women employed in supervisory occupations. No part-time men or women employees were reported in supervisory occupations by employers in 1970, nor do employers anticipate hiring any new part-time men or women employees at this occupational level between 1970 and 1975.

Employers reported 4 part-time men employees employed in clerical occupations in 1965, and 1970, and they anticipate employing the same number of part-time men employees

in 1975, for no increase in the number of part-time men employees between 1970 and 1975. There were no part-time women reported working in clerical occupations in 1965, nor in 1970, nor do employers anticipate hiring any new part-time women employees between 1970 and 1975.

In 1965 employers reported 32 part-time men and 28 part-time women employed in skilled occupations. The number of part-time men employed in such occupations increased to 56 in 1970, for an increase of 24 part-time men employees. The number of part-time women did not increase in 1970 from the reported 28 in 1965, nor do employers anticipate hiring any additional part-time women between 1970 and 1975. Employers do anticipate, however, hiring an additional 24 part-time men employees between 1970 and 1975. These increases will be reflected in the occupational titles of: grounds equipment operator, with an increase of 16 part-time men employees between 1970 and 1975; and tree pruner, with an increase of 8 part-time employees between 1970 and 1975.

Employers reported 92 part-time men and 4 part-time women employed in semi-skilled occupations in 1965. The number of part-time men employees increased in 1970 to 164, while there was no reported increase in the number of part-time women employed in semi-skilled occupations. Employers anticipate hiring 44 additional part-time men employees by 1975, to bring the total number of men employed part-time in semi-skilled occupations to 208. Employers do not

anticipate the hiring of any additional part-time women employees between 1970 and 1975. Occupational titles which will increase in numbers are: greenhouse worker, with an increase of 8 part-time men employees between 1970 and 1975; and nursery and landscape worker, with an increase of 36 part-time men between 1970 and 1975.

There was only one occupational title in the technical occupations in which part-time employees were reported; this was the occupational title of floral designer. Employers reported 4 part-time men and 24 part-time women employed at this level in 1965. These numbers increased to 8 part-time men and 28 part-time women in 1970. Employers anticipate hiring an additional 28 part-time women in this occupational title by 1975, to bring to 56 the total number of part-time women employees. No increases in the number of part-time men employed were anticipated.

The largest increases in part-time employee numbers between 1970 and 1975 will be in the semi-skilled occupations, with an increase of 44 part-time men employees. The number of part-time women employees at this level of employment is not expected to increase. Second are the professional occupations, with increases of 16 part-time men employees and 20 part-time women employees between 1970 and 1975. Technical occupations will increase in numbers between 1970 and 1975 with the anticipated hiring of 28 part-time women employees. Employers do not anticipate

an increase in the number of part-time men employed at this level between 1970 and 1975.

Sales occupations will increase in number of part-time men employees from 96 in 1970 to 100 in 1975, or an overall increase of 4 part-time men employees. Part-time women employees will increase in number from 44 in 1970 to 52 in 1975, or an increase of 8 part-time women employees.

Skilled occupations will increase in numbers of part-time men employed from 56 in 1970 to 80 in 1975, or an increase of 24 part-time men employees between 1970 and 1975. Employers do not anticipate hiring any additional part-time women employees between 1970 and 1975, so that the number of part-time women employees will not increase from the 28 part-time employed in 1970.

There were no part-time men or women employed in supervisory occupations in 1965 or 1970, and employers do not anticipate hiring additional part-time employees at this level between 1970 and 1975.

Employers reported 4 part-time men employed in clerical occupations in 1965. The number of part-time men employed in clerical occupations remained the same in 1970, and employers do not anticipate hiring any part-time men in clerical occupations in the period between 1970 and 1975.

The ages of present employers and employees by occupational titles are presented in Table 6 (see Exhibit F in the Appendix for basic data). At the time of this study,

TABLE 6

AGES OF PRESENT EMPLOYERS AND EMPLOYEES
BY OCCUPATIONAL TITLE

Occupational Title	Numbers of Present Employers and Employees by Age Category				
	15-20 Years	21-35 Years	36-45 Years	46-60 Years	61+ Years
Professional Occupations					
Florist	0	20	20	28	8
Landscape Architect	0	0	0	0	0
Landscape Salesman	0	12	0	0	0
Entomologist	0	0	0	0	0
Nurseryman	0	0	0	0	0
Plant Pathologist	0	0	0	0	0
Subtotals	0	32	20	28	8
Percent		36.36	22.72	31.81	9.09
Managerial Occupations					
Floral Shop Manager	0	0	12	16	4
Garden Center Manager	0	12	0	8	0
Greenhouse Manager	0	0	4	8	0
Grounds Manager	4	0	4	0	0
Landclearing Manager	0	0	0	0	0
Landscape Garden Manager	0	0	0	4	0
Nursery Manager	0	0	4	4	4
Tree Service Manager	0	8	12	12	4
Retail Sales Manager	0	0	0	0	0
Manager of Chemical and Fertilizer Department	0	0	16	0	0

TABLE 6 (continued)

Occupational Title	Numbers of Present Employers and Employees by Age Category				
	15-20 Years	21-35 Years	36-45 Years	46-60 Years	61+ Years
Managerial Occupations (continued)					
Nursery Stock and Tree Manager	0	0	0	0	0
Manager of Sodding Operation	0	0	12	4	0
Subtotals	4	20	64	56	12
Percent	2.56	12.82	41.02	35.89	7.69
Sales Occupations					
Floral Salesman	12	16	48	20	4
Garden Center Salesman	24	88	44	16	4
Nursery Salesman	40	32	0	0	0
Sod Salesman	0	0	0	0	0
Landscape Salesman	0	0	4	0	0
Subtotals	76	136	96	36	8
Percent	21.34	39.32	26.96	10.11	2.24
Supervisory Occupations					
Floral Shop Supervisor	0	0	0	4	0
Garden Center Supervisor	0	4	4	8	0
Greenhouse Foreman	0	0	8	0	0
Grounds Supervisor	0	0	8	8	0
Landscape Gardener	0	12	8	0	0
Municipal Park Supervisor	0	0	0	0	0
Nursery Foreman	0	0	8	4	0
Subtotals	0	16	36	24	0
Percent		21.05	47.36	31.57	

TABLE 6 (continued)

Occupational Title	Numbers of Present Employers and Employees by Age Category 15-20 Years	21-35 Years	36-45 Years	46-60 Years	61+ Years
Clerical Occupations					
Floral Shop Bookkeeper	0	0	4	8	0
Garden Center Bookkeeper	0	0	4	4	0
Greenhouse Bookkeeper	0	0	0	4	0
Nursery Bookkeeper	0	0	0	8	0
Tree Service Bookkeeper	0	0	4	0	0
Sodding Company Bookkeeper	0	8	0	0	4
Subtotals	0	8	12	24	4
Percent		16.66	25.00	50.00	8.33
Skilled Occupations					
Floral Designer	0	0	0	0	0
Florist	0	0	0	0	0
Greenhouse Grower	0	0	0	0	0
Grounds Equipment Operator	24	12	8	0	4
Groundskeeper	16	0	28	0	4
Horticulturalist	0	4	4	4	0
Landscape Worker	0	0	0	0	0
Nurseryman	0	4	4	0	4

TABLE 6 (continued)

Occupational Title	Numbers of Present Employers and Employees by Age Category				
	15-20 Years	21-35 Years	36-45 Years	46-60 Years	61+ Years
Skilled Occupations (continued)					
Nursery Propagator	0	0	16	8	0
Greenhouse Propagator	0	0	0	0	0
Tree Pruner	0	12	20	0	0
Subtotals	40	32	80	12	12
Percent	20.40	16.32	51.02	8.16	4.08
Semi-Skilled Occupations					
Floral Shop Worker	0	0	8	8	0
Greenhouse Floral Shop Worker	0	0	0	0	0
Deliveryman	0	4	0	0	0
Greenhouse Worker	0	4	8	0	0
Groundskeeper	0	0	0	0	0
Nursery and Landscape Worker	160	40	0	24	4
Truck Driver	0	64	16	4	0
Tree Service Groundsman	0	16	12	4	0
Subtotals	160	128	44	40	4
Percent	41.66	33.33	11.45	12.50	1.04

TABLE 6 (continued)

Occupational Title	Numbers of Present Employers and Employees by Age Category				
	15-20 Years	21-35 Years	36-45 Years	46-60 Years	61+ Years
Technical Occupations					
Floral Designer	0	44	72	48	12
Florist	0	0	0	0	0
Landscape Designer	0	0	0	0	0
Landscape Technician	0	0	0	0	0
Nurseryman	0	12	0	4	4
Subtotals	0	56	72	52	16
Percent		27.45	37.25	27.45	7.84
TOTALS	280	428	424	312	64

280 employees were between 15-20 years of age, 428 employees were between 21-35 years of age, 424 employees were between 36-45 years of age, 312 employees were between 46-60 years of age, and 64 employees were 61 years old or older.

In the professional level of employment, there were no employees between 15-20 years of age, 32 employees were between 21-35 years of age, 20 employees were between 36-45 years of age, 28 employees were between 46-60 years of age, and 8 employees were 61 years old or older.

In managerial occupations 4 employees were between 15-20 years of age, 20 employees were between 21-35 years of age, 64 employees were between 36-45 years of age, 56 employees were between 46-60 years of age, and 12 employees were 61 years old or older.

At the sales level of employment, 76 employees were between 15-20 years of age, 136 employees were between 21-35 years of age, 96 employees were between 36-45 years of age, 36 employees were between 46-60 years of age, and 8 employees were 61 years old or older.

At the supervisory level of employment, no employees were reported in the age group 15-20, 16 employees were reported in the age group 21-35, 36 employees were reported in the age group 36-45, 24 employees were reported in the age group 46-60, and no employees were reported to be 61 years old or older.

At the clerical level of employment, no employees were reported in the age group 15-20, 8 employees were reported in the age group 21-35, 12 employees were reported in the age group 36-45, 24 employees were reported in the age group 46-60, and 4 employees were reported to be 61 years old or older.

In skilled occupations 40 employees were between 15-20 years of age, 32 employees were between 21-35 years of age, 80 employees were between 36-45 years of age, 12 employees were between 46-60 years of age, and 12 employees were 61 years old or older.

In semi-skilled occupations 160 employees were reported between the ages of 15-20, 128 employees were reported in the age group 21-35, 44 employees were reported in the age group 36-45, 40 employees were reported in the age group 46-60, and 4 employees were reported in the age group of 61 years old or older.

At the technical level of employment, employees reported no employees in the age group of 15-20, 56 employees were reported as being between the ages of 21-35, 72 employees were reported as being between the ages of 36-45, 52 employees were reported as being between the ages of 46-60 years old, and 16 employees were reported as being 61 years old or older.

The age group of 61 years and over is of great importance to this study, as it was from this group of employees that the author calculated the number of new

employees needed to replace those employees retiring during the next five years. These calculations were based on the assumption that all those employees 61 years of age and older would be reaching the retirement age of 65 on or before 1975. The data in Table 7 depicts the projected number of employees needing competencies in ornamental horticulture anticipated due to expansion, promotion, turnover, and retirement during the next five years by main ornamental horticultural product or service category.

Retail florists anticipate they will need the greatest number of employees during the five year period 1970-1975, with 180 additional employees needed due to promotion, expansion, and turnover; and 28 additional employees needed due to retirement; for a total of 208 additional employees anticipated in the next five years.

During the period 1970-1975 landscape services anticipate they will need an additional 112 employees due to expansion, promotion, and turnover, and 8 additional employees due to retirement, for a total of 120 new employees needed by 1975.

Retail vendors of nursery stock anticipate they will need a total of 68 additional employees during the five year period 1970-1975; 64 of these new employees will be needed due to promotion, expansion, and turnover; 4 of these new employees will be needed due to the retirement of older employees.

TABLE 7

PROJECTED NUMBER OF EMPLOYEES NEEDING COMPETENCIES IN ORNAMENTAL HORTICULTURE NEEDED DUE TO EXPANSION, PROMOTION, TURNOVER, AND RETIREMENT DURING THE NEXT FIVE YEARS, BY MAIN ORNAMENTAL HORTICULTURAL PRODUCT OR SERVICE CATEGORY, IN METROPOLITAN OMAHA

Ornamental Horticultural Product or Service Category	Employees Needed in Next Five Years Due to Promotion, Expansion, and Turnover	Employees Needed in Next Five Years Due to Retirement	Projected Total Number Needed
Retail Florist	180	28	208
Wholesale Florist	12	0	12
Landscape Service	112	8	120
Golf Course	30	4	34
Tree Service	56	4	60
Retail Vendor of Nursery Stock	64	4	68
Nurseryman	28	12	40
TOTALS	482	60	542

Tree services will need a total of 60 additional employees during the five year period 1970-1975; 56 of these new employees will be needed due to promotion, expansion, and turnover; 4 of these new employees will be needed due to the retirement of older employees.

Nurserymen will need a total of 40 additional employees during the five year period 1970-1975; 28 of these new employees will be needed due to promotion, expansion, and turnover; 12 of these new employees will be needed due to the retirement of older employees.

Golf courses will need a total of 34 additional employees during the five year period 1970-1975; 30 of these new employees will be needed due to promotion, expansion, and turnover; 4 of these new employees will be needed due to the retirement of older employees.

Wholesale florists anticipate a total of 12 new employees during the five year period 1970-1975; all 12 of these new employees will be needed due to promotion, expansion, and turnover. No new employees will be needed due to the retirement of older employees.

The projected number of total new employees needed in the period 1970-1975 is 542, with 482 of these employees needed due to expansion, promotion, and turnover; the remaining 60 new employees needed due to the retirement of older employees.

The minimum educational level needed for new employees in the ornamental horticulture industry in Omaha, Nebraska, by occupational titles are shown in Table 8 (see Exhibit G in Appendix for original basic data).

At the professional level of employment, no employer indicated a desire to employ a person with less than a high school education; 20 employers desired an employee working at this level to be a high school graduate, 8 employers indicated they desired employees working at this level to have completed post-high school vocational training, 12 employers indicated they desired employees working at this level to have attended college, 12 employers indicated that they desired employees working at this level to have completed college.

At the managerial level of employment, no employer indicated a desire to employ a person with less than a high school education; 56 employers indicated they desired employees working at this level to be a high school graduate, 20 employers indicated they desired employees working at this level to have completed post-high school vocational training, 40 employers indicated they desired employees working at this level to have attended college, 16 employers indicated they desired employees working at this level to have completed college.

At the sales level of employment, no employer indicated a desire to employ a person with less than a high school

TABLE 8

PROJECTED MINIMUM EDUCATIONAL LEVEL NEEDED FOR NEW EMPLOYEES IN THE ORNAMENTAL HORTICULTURAL INDUSTRY IN OMAHA, NEBRASKA, BY OCCUPATIONAL TITLE, AS INDICATED BY EMPLOYERS

	Employee Educational Levels				
Occupational Title	Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Professional Occupations					
Florist	0	8	8	12	12
Landscape Architect	0	0	0	0	0
Landscape Salesman	0	4	0	0	0
Entomologist	0	0	0	0	0
Nurseryman	0	8	0	0	0
Plant Pathologist	0	0	0	0	0
Subtotals	0	20	8	12	12

TABLE 8 (continued)

Occupational Title	Employee Educational Levels				
	Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Managerial Occupations					
Floral Shop Manager	0	8	12	12	0
Garden Center Manager	0	8	0	4	4
Greenhouse Manager	0	8	0	0	8
Grounds Manager	0	4	0	0	0
Landclearing Manager	0	0	0	0	0
Landscape Garden Manager	0	4	0	0	0
Nursery Manager	0	4	0	4	0
Tree Service Manager	0	12	8	12	4
Retail Sales Manager	0	0	0	0	0
Manager of Chemical and Fertilizer Department	0	4	0	4	0
Nursery Stock and Tree Manager	0	0	0	0	0
Manager of Sodding Operations	0	4	0	4	0
Subtotals	0	56	20	40	16

TABLE 8 (continued)

Occupational Title	Employee Educational Levels				
	Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Sales Occupations					
Floral Salesman	0	16	0	4	0
Garden Center Salesman	0	40	8	4	0
Nursery Salesman	0	16	8	0	0
Sod Salesman	0	0	0	0	0
Landscape Salesman	0	0	0	4	0
Subtotals	0	72	16	12	0
Supervisory Occupations					
Floral Shop Supervisor	0	0	4	0	0
Garden Center Supervisor	0	4	4	8	0
Greenhouse Foreman	0	0	4	0	0
Grounds Supervisor	0	8	0	4	0

TABLE 8 (continued)

Occupational Title	Employee Educational Levels				
	Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Supervisory Occupations (continued)					
Landscape Gardener	0	8	0	0	0
Municipal Park Supervisor	0	0	0	0	0
Nursery Foreman	0	0	4	0	0
Subtotals	0	20	16	12	0
Clerical Occupations					
Floral Shop Bookkeeper	0	8	0	4	0
Garden Center Bookkeeper	0	8	0	0	0
Greenhouse Bookkeeper	0	4	0	0	0
Nursery Bookkeeper	0	8	0	0	0
Tree Service Bookkeeper	0	4	0	0	0
Sodding Company Bookkeeper	0	8	0	0	0
Subtotals	0	40	0	4	0

TABLE 8 (continued)

Occupational Title	Employee Educational Levels				
	Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Skilled Occupations					
Floral Designer	0	0	0	0	0
Florist	0	0	0	0	0
Greenhouse Grower	0	0	0	0	0
Grounds Equipment Operator	0	16	0	0	0
Groundskeeper	0	12	0	0	0
Horticulturalist	0	12	0	0	0
Landscape Worker	0	0	0	0	0
Nurseryman	0	8	0	0	0
Nursery Propagator	4	0	4	0	0
Greenhouse Propagator	0	0	0	0	0
Tree Pruner	0	16	4	0	0
Subtotals	4	64	8	0	0

TABLE 8 (continued)

Occupational Title	Employee Educational Levels				
	Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Semi-Skilled Occupations					
Floral Shop Worker	0	4	8	0	0
Greenhouse Floral Shop Worker	0	0	0	0	0
Deliveryman	0	4	0	0	0
Greenhouse Worker	0	0	4	0	0
Groundskeeper	0	0	0	0	0
Nursery and Landscape Worker	4	20	0	0	0
Truck Driver	0	60	0	0	0
Tree Service Groundsman	0	8	4	0	0
Subtotals	4	96	16	0	0

TABLE 8 (continued)

Occupational Title	Employee Educational Levels				
	Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Technical Occupations					
Floral Designer	0	8	40	0	0
Florist	0	0	0	0	0
Landscape Designer	0	0	0	0	0
Landscape Technician	0	0	0	0	0
Nurseryman	0	8	4	0	0
Subtotals	0	16	44	0	0

education, 72 employers indicated they desired employees working at this level to have completed high school, 16 employers indicated they desired employees working at this level to have completed post-high school vocational training, 12 employers indicated they desired employees working at this level to have attended college. Employers did not indicate the necessity of being a college graduate to work at this employment level.

No employers indicated they desired an employee with less than a high school education to work at the supervisory level of employment. Twenty employers indicated that they desired employees working at this level to have completed high school, 16 employers indicated that they desired employees to have completed post-high school vocational training, 12 employers indicated that they desired employees working at this level to have attended college. Employers did not indicate the necessity of being a college graduate to work at this employment level.

Employers indicated that they did not desire to employ a person with less than a high school education to work at the clerical level of employment. Forty employers indicated that they desired employees working at this level to have completed high school. No employers indicated a desire to employ employees that have completed post-high school vocational training at this employment level. Four employers indicated that they desired employees working at this level to have attended college. No employers indicated a desire to employ college graduates at this level of employment.

Four employers indicated a willingness to employ employees with less than a high school education to work at the skilled level of employment. Sixty-four employers indicated a desire to employ high school graduates at this level of employment, eight employers indicated that they desired employees working at this level to have completed post-high school vocational training. Employers did not indicate a need for employees who had attended college or that had graduated from college at this level of employment.

Four employers indicated their willingness to hire employees with less than a high school education to work at the semi-skilled employment level. Ninety-six employers indicated that they desired employees working at this level of employment to have completed high school. Sixteen employers indicated that they desired employees working at this level to have completed post-high school vocational training. No employers indicated a desire to employ any persons who had attended college or that had graduated from college.

No employers indicated a desire to employ an employee with less than a high school education to work at the technical level of employment. Four employers indicated that they desired employees working at this level to have completed high school. Forty-four employers indicated that they desired employees working at this level to have completed post-high school vocational training.

The data in Table 9 reveal the projected number of employers willing to cooperate with the local high school in providing training for ornamental horticultural occupations by main horticultural product or service category.

Golf courses were the most cooperative with a projected 40 positive responses and 24 negative responses. Landscape services responded positively in an anticipated 28 cases and negatively in 20 cases. Wholesale florists responded positively in 4 cases and negatively in 4 cases. Tree services responded positively in 48 cases and negatively in 64 cases. Nurserymen responded positively in 32 cases and negatively in 64 cases. Retail vendors of nursery stock responded positively in 116 cases and negatively in 156 cases. Retail florists responded positively in 80 cases and negatively in 128 cases.

TABLE 9

PROJECTED NUMBER OF EMPLOYERS WILLING TO COOPERATE WITH THE LOCAL HIGH SCHOOL IN PROVIDING TRAINING FOR ORNAMENTAL HORTICULTURAL OCCUPATIONS, BY MAIN ORNAMENTAL HORTICULTURAL PRODUCT OR SERVICE CATEGORY, IN METROPOLITAN OMAHA

Questions Asked Employers by Ornamental Horticultural Product or Service Category	Number of Employers' Responses: Yes — In Sample	Yes — In Population	No — In Sample	No — In Population
Retail Florists				
I would employ the students enrolled in the class on a part-time basis	8	32	5	20
I would provide on-the-job training for students enrolled in this class	2	8	11	44
I would furnish equipment or supplies for students enrolled in this class	5	20	8	32
I would furnish technical assistance to the teacher	5	20	8	32
Subtotals	20	80	32	128
Wholesale Florists				
I would employ the students enrolled in the class on a part-time basis	1	4	1	4
I would provide on-the-job training for students enrolled in this class	1	4	1	4
I would furnish equipment or supplies for students enrolled in this class	1	4	1	4
I would furnish technical assistance to the teacher	1	4	1	4
Subtotals	4	16	4	16

TABLE 9 (continued)

Questions Asked Employers by Ornamental Horticultural Product or Service Category	Number of Employers' Responses: Yes — In Sample	Yes — In Population	No — In Sample	No — In Population
Landscape Service				
I would employ the students enrolled in the class on a part-time basis	2	8	1	4
I would provide on-the-job training for students enrolled in this class	1	4	2	8
I would furnish equipment or supplies for students enrolled in this class	1	4	2	8
I would furnish technical assistance to the teacher	3	12	0	0
Subtotals	7	28	5	20
Golf Course				
I would employ the students enrolled in the class on a part-time basis	3	12	1	4
I would provide on-the-job training for students enrolled in this class	3	12	1	4
I would furnish equipment or supplies for students enrolled in this class	0	0	4	16
I would furnish technical assistance to the teacher	4	16	0	0
Subtotals	10	40	6	24

TABLE 9 (continued)

Questions Asked Employers by Ornamental Horticultural Product or Service Category	Number of Employers' Responses: Yes — In Sample	Yes — In Population	No — In Sample	No — In Population
Tree Service				
I would employ the students enrolled in the class on a part-time basis	3	12	4	16
I would provide on-the-job training for students enrolled in this class	3	12	4	16
I would furnish equipment or supplies for students enrolled in this class	2	8	5	20
I would furnish technical assistance to the teacher	4	16	3	12
Subtotals	12	48	16	64
Retail Vendor of Nursery Stock				
I would employ the students enrolled in the class on a part-time basis	14	56	3	12
I would provide on-the-job training for students enrolled in this class	5	20	12	48
I would furnish equipment or supplies for students enrolled in this class	7	28	10	40
I would furnish technical assistance to the teacher	3	12	14	56
Subtotals	29	116	39	156

TABLE 9 (continued)

Questions Asked Employers by Ornamental Horticultural Product or Service Category	Number of Employers' Responses: Yes — In Sample	Yes — In Population	No — In Sample	No — In Population
Nurseryman				
I would employ the students enrolled in the class on a part-time basis	1	4	5	20
I would provide on-the-job training for students enrolled in this class	1	4	5	20
I would furnish equipment or supplies for students enrolled in this class	4	16	2	8
I would furnish technical assistance to the teacher	2	8	4	16
Subtotals	8	32	16	64
TOTALS	90	360	118	472

CHAPTER IV

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

The purpose of this study was to determine the employment opportunities in ornamental horticulture in the metropolitan area of Omaha, Nebraska. More specifically the problem was defined in terms of the following objectives:

1. To identify employment opportunities by clusters of job titles or occupational areas.
2. To determine trends of occupational opportunities existing in the field of ornamental horticulture.
3. To identify selected characteristics in ornamental horticulture businesses:
   a. Level of education desired for future employees.
   b. Ages of employees.

The region of study, or universe, was designated as the metropolitan area of Omaha, Nebraska. For purposes of this study, only those firms and businesses that used an Omaha mailing address were included in the universe.

The occupational family of ornamental horticulture was categorized on the basis of the major function of the firm. The seven categories were:

1. Wholesale Florist
2. Retail Florist
3. Landscape Service
4. Golf Course

5. Tree Service
6. Nurseryman
7. Retail Vendor of Nursery Stock

Lists of firms and businesses were then compiled. The total number of firms appearing on these lists was 208.

A table of random numbers was used to select a 25 percent random sample from each of these 7 categories. All these firms and businesses were then contacted to obtain data.

Summary

Based on the data in the preceding tables, the following results were indicated:

1. The 208 ornamental horticultural firms and businesses in Omaha employed an estimated 580 full-time men employees and 148 full-time women employees in 1965.
   a. These firms employed an estimated 820 full-time men employees and 244 women employees in 1970.
   b. It is projected that they will employ 1,108 full-time men employees and 296 women employees by 1975.
   c. There will be an average annual increase of 58 full-time men employees and 12 full-time women employees between 1970 and 1975.
   d. The greatest number of these new employees will be needed by retail florists, who will need 72

new full-time men employees and 52 new full-time women employees between 1970 and 1975. Landscape services will require 100 new full-time men employees in this same period. Tree services will need 48 new full-time men employees. Retail vendors of nursery stock will need 36 new full-time men employees and 4 new full-time women employees. Golf courses anticipate need for 28 new full-time men employees. Wholesale florists will need 4 new full-time men employees. Nurserymen will require 4 new full-time women employees.

e. The largest number of new full-time employees will be in semi-skilled occupations, with 112 new full-time men employees needed between 1970 and 1975. The number of new full-time employees needed in professional occupations will increase in the period 1970-1975 by 36 men and 44 women employees. The number of new full-time employees needed in skilled occupations will increase in the period 1970-1975 by 56 men employees. The number of new full-time employees needed in technical occupations will increase in the period 1970-1975 by 36 men and 4 women employees. The number of new full-time employees needed in sales occupations in the

period 1970-1975 will increase by 20 men employees and decrease by 8 women employees. The number of new full-time employees needed in managerial occupations in the period 1970-1975 will increase by 8 men employees and 4 women employees.

f. The number of new full-time employees needed in clerical occupations in the period 1970-1975 will not increase as no new employees are needed due to expansion, promotion, or turnover.

2. The 208 ornamental horticultural firms and businesses in Omaha employed an estimated 196 part-time men employees and 76 part-time women employees in 1965.

   a. These firms employed an estimated 340 part-time men employees and 104 part-time women employees in 1970. It is projected that these firms will employ 428 part-time men employees and 160 part-time women employees by 1975.

   b. There will be an average annual increase of 88 part-time men employees and 56 part-time women employees.

   c. The greatest number of these new employees will be needed by retail florists, who will hire 8 new part-time men employees and 48 new part-time women employees between 1970 and 1975. Nurserymen will hire 24 new part-time men employees

in this same period. Retail vendors of nursery stock will need 16 new part-time men employees and 8 new part-time women employees. Landscape services will require 12 new part-time men employees. Golf courses will need 12 new part-time men employees. Wholesale florists will require 8 new part-time employees.

d. The largest number of new part-time employees will be needed in semi-skilled occupations, with 44 new part-time men employees needed between 1970 and 1975. The number of new part-time employees needed in professional occupations will increase in the period 1970-1975 by 16 men and 20 women employees. The number of new part-time employees needed in technical occupations will increase in the period 1970-1975 by 28 women employees. The number of new part-time employees needed in skilled occupations will increase in the period 1970-1975 by 24 men employees. The number of new part-time employees needed in sales occupations will increase in the 1970-1975 period by 4 men and 8 women employees. The number of new part-time employees needed in managerial occupations will increase in the period 1970-1975 by 4 men employees.

e. No increases in part-time employee numbers are anticipated in supervisory and clerical occupations in the period 1970-1975.

3. There was a total number of 424 persons employed in ornamental horticultural occupations in Omaha, Nebraska, between the ages of 36-45.

   a. A total number of 428 persons employed in these occupations were between the ages of 21-35. A total number of 312 persons employed were between the ages of 46-60. A total of 280 persons employed were between the ages of 15-20.

   b. A total of 64 persons employed were 61 years of age or over. Because these persons will probably retire at age 65, the replacement of these employees can be considered as employment opportunities.

   c. There were no persons between ages 15-20 employed in professional, supervisory, clerical, or technical occupations. There were no persons 61 years of age or older employed in supervisory occupations.

4. In only two levels of employment were employers willing to hire employees with less than a high school education. Four employers responded that at the skilled level of employment they were willing to hire nursery propagators without a high school

education. Four employers also responded that at the semi-skilled level they were willing to hire nursery and landscape workers without a high school education.

a. A high majority of employers desired that employees have a high school education at almost all levels of employment.

b. Post-high school vocational education was desired by employers at all levels of employment. Occupational titles in which employers desired post-high school vocational training were: florist, floral shop manager, tree service manager, garden center salesman, nursery salesman, garden center supervisor, floral shop supervisor, greenhouse foreman, nursery foreman, nursery propagator, tree pruner, floral shop bookkeeper, floral shop worker, greenhouse worker, floral designer, and nurseryman.

c. Employees with some college training were desired by employers at the following levels of employment: professional, managerial, sales, supervisory, skilled, and clerical. Occupational titles in which such training was requested were: florist, floral shop manager, tree service manager, garden center manager, nursery manager, manager of sodding operations,

floral salesman, garden center salesman, garden center supervisor, grounds supervisor, floral shop bookkeeper.

d. College graduates were desired by employers for two levels of employment: professional and managerial. Occupational titles in which such training was requested were: florist, garden center manager, greenhouse manager, tree service manager.

5. The majority of employers indicated that they would cooperate with the local high school in providing a training program to prepare students for employment in ornamental horticultural occupations.

   a. Most employers were limited in the manner in which they could support the program, and generally responded positively on only one or two of the questions; hence, the reason for high number of negative responses on employer's behalf.

   b. The largest majority of all employers indicated that they would be willing to employ students on a part-time basis. The next largest majority of employers indicated that they would be willing to furnish technical assistance to the teacher. This group was followed by those employers who indicated a willingness to furnish equipment or supplies for students enrolled in the class.

c. Employers were least willing to provide on-the-job training for students enrolled in the class.

Implications

From an analysis of the results of this study, certain implications may be made with regard to vocational programs dealing with student preparation for entry into ornamental horticultural occupations in Omaha, Nebraska. Because of the importance of determining employment opportunities in program planning, it is hoped that this study will provide necessary information to those educators concerned with the development of vocational programs designed to prepare students for employment on ornamental horticultural occupations.

The following implications can be drawn from the study:

1. There exist an adequate number of employment opportunities in ornamental horticultural occupations to warrant the development of vocational programs to prepare students for employment in these occupations at the high school level.
2. There is a need to develop a post-high school vocational program in ornamental horticulture to prepare students for employment in these occupations.

Recommendations

As a result of this study, the following recommendation may be considered:

1. Curricula should be developed to prepare high school students and post-high school students for entry into ornamental horticulture occupations.

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APPENDIX

Exhibit A

University of Nebraska
College of Agriculture
Department of Agricultural Education
Lincoln, Nebraska

A STUDY TO DETERMINE EMPLOYMENT OPPORTUNITIES IN ORNAMENTAL HORTICULTURAL OCCUPATIONS IN OMAHA, NEBRASKA

I. Business or Service

A. Position of Person Interviewed

1. _____ Owner
2. _____ Owner-Manager
3. _____ Manager
4. _____ Personnel Director
5. _____ Sales Manager
6. _____ Office Manager
7. _____ Supervisor (district, area, etc.)
8. _____ Other

B. Number of years in business in this locality:_____

C. Main function of firm, organization, or agency:

1. _____ Retail Florist
2. _____ Wholesale Florist
3. _____ Landscape Service
4. _____ Golf Course
5. _____ Tree Service
6. _____ Retail Vendor of Nursery Stock
7. _____ Nurseryman

II. Employees

A. Total number of persons working in firm:_____

B. Definitions:

1. A full-time employee is defined as an employee spending 100% of a normal work day throughout a normal work year at a specific job.
2. A part-time employee is defined as an employee spending less than 100% of a normal work day, or less than a normal work year, or a combination of both, at a specific job.

3. Occupational Areas:

   a. Professional: This category includes all those persons whose occupation requires advanced academic training.
   b. Manager: This category includes all those persons in directing, supervising, and managing an ornamental horticultural operation and its employees.
   c. Technical: This category includes all those persons whose occupation requires advanced technical training.
   d. Sales: This category includes persons whose occupation involves primary responsibility for selling horticultural products, or products some way related to ornamental horticulture.
   e. Supervisory: This category involves those persons whose occupation involves primary responsibility for management of a specific department or operation with an ornamental horticulture business.
   f. Clerical: This category includes those persons whose occupation involves primary responsibility for performing the bookkeeping, typing, shorthand, and other clerical or stenographic functions in ornamental horticulture business.
   g. Skilled: This category includes those persons whose occupation involves the mastery of a specific skill.
   h. Semi-Skilled: This category includes those persons whose occupation does not require the mastery of a specific skill.

C. Questionnaire

III. Employee Training

A. If a local high school wished to conduct a program in Ornamental Horticulture, would you support this program? _____yes _____no

If "yes," indicate the extent of such support.

_____ I would employ the students enrolled in the class on a part-time basis.
_____ I would provide on-the-job training for students enrolled in this class.
_____ I would furnish equipment or supplies for use by the teacher in the classroom.
_____ I would furnish technical assistance to the teacher.

Occupational Area	FULL-TIME 1965 M	FULL-TIME 1965 W	FULL-TIME Now 1970 M	FULL-TIME Now 1970 W	FULL-TIME 1975 M	FULL-TIME 1975 W	PART-TIME 1965 M	PART-TIME 1965 W	PART-TIME Now 1970 M	PART-TIME Now 1970 W	PART-TIME 1975 M	PART-TIME 1975 W	EMPLOYEES' AGES 15-20	21-35	36-45	46-60	61+	EDUC. LEVEL NEEDED LHS	HS	PSVT	SC	CG	If trained personnel were available now, would you hire additional employees? Yes	No
P																								
Florist																								
Landscape Architect																								
Landscape Salesman																								
Entomologist																								
Nurseryman																								
Plant Pathologist																								
M																								
Floral Shop Mgr.																								
Garden Center Mgr.																								
Greenhouse Mgr.																								
Grounds Mgr.																								
Landclearing Mgr.																								
Landscape Garden Mgr.																								
Nursery Mgr.																								
Tree Service Mgr.																								
Retail Sales Mgr.																								
Mgr. of Chem. & Fertilizer Dept.																								
Nursery Stock & Trees Mgr.																								
Mgr. of Sodding Operation																								
T																								
Floral Designer																								
Florist																								
Landscape Designer																								
Landscape Technician																								
Nurseryman																								

Occupational Area	FULL-TIME 1965 M	FULL-TIME 1965 W	FULL-TIME Now 1970 M	FULL-TIME Now 1970 W	FULL-TIME 1975 M	FULL-TIME 1975 W	PART-TIME 1965 M	PART-TIME 1965 W	PART-TIME Now 1970 M	PART-TIME Now 1970 W	PART-TIME 1975 M	PART-TIME 1975 W	EMPLOYEES' AGES 15-20	21-35	36-45	46-60	61+	EDUC. LEVEL NEEDED LHS	HS	PSVT	SC	CG	If trained personnel were available now, would you hire additional employees? Yes	No
SL																								
Floral Salesman																								
Garden Center Salesman																								
Nursery Salesman																								
Sod Salesman																								
Landscape Salesman																								
SV																								
Floral Shop Supervisor																								
Garden Center Supervisor																								
Greenhouse Foreman																								
Grounds Supervisor																								
Landscape Gardener																								
Municipal Park Supervisor																								
Nursery Foreman																								
C																								
Floral Shop Bookkeeper																								
Garden Center Bookkeeper																								
Greenhouse Bookkeeper																								
Nursery Bookkeeper																								
Tree Service Bookkeeper																								
Sodding Company Bookkeeper																								

Occupational Area	FULL-TIME 1965 M	FULL-TIME 1965 W	FULL-TIME Now 1970 M	FULL-TIME Now 1970 W	FULL-TIME 1975 M	FULL-TIME 1975 W	PART-TIME 1965 M	PART-TIME 1965 W	PART-TIME Now 1970 M	PART-TIME Now 1970 W	PART-TIME 1975 M	PART-TIME 1975 W	EMPLOYEES' AGES 15-20	21-35	36-45	46-60	61+	EDUC. LEVEL NEEDED LHS	HS	PSVT	SC	CG	If trained personnel were available now, would you hire additional employees? Yes	No
SK																								
Floral Designer																								
Florist																								
Greenhouse Grower																								
Grounds Equipment Operator																								
Groundskeeper																								
Horticulturalist																								
Landscape Worker																								
Nurseryman																								
Nursery Propagator																								
Greenhouse Propagator																								
Tree Pruner																								
SSK																								
Floral Shop Worker																								
Greenhouse Floral Shop Worker																								
Delliveryman																								
Greenhouse Worker																								
Groundskeeper																								
Nursery & Landscape Worker																								
Truck Driver																								
Tree Service Groundsman																								

Exhibit B

TABLE 10

BASIC DATA CONCERNING NUMBER OF FULL-TIME MEN AND WOMEN EMPLOYEES NEEDING ORNAMENTAL HORTICULTURAL COMPETENCIES EMPLOYED IN 1965, CURRENTLY, AND ESTIMATED NUMBER OF EMPLOYEES NEEDED DUE TO EXPANSION, PROMOTION, AND TURNOVER DURING THE NEXT FIVE YEARS, BY MAIN ORNAMENTAL HORTICULTURAL PRODUCT OR SERVICE CATEGORY, IN METROPOLITAN OMAHA

Ornamental Horticultural Product or Service Category	Full-Time Employees Needing Ornamental Horticultural Competencies					
	1965		Current 1970		1975	
	M	W	M	W	M	W
Retail Florist	45	28	48	41	66	54
Wholesale Florist	8	1	6	3	7	3
Landscape Service	32	3	48	4	73	4
Golf Course	12	0	22	0	9	0
Tree Service	22	1	15	0	27	0
Retail Vendor of Nursery Stock	19	2	58	12	67	12
Nurseryman	7	2	8	1	8	1
TOTALS	145	37	205	61	277	74

Exhibit C

TABLE 11

BASIC DATA CONCERNING NUMBER OF FULL-TIME EMPLOYEES IN ORNAMENTAL HORTICULTURAL BUSINESSES NEEDING ORNAMENTAL HORTICULTURAL COMPETENCIES BY OCCUPATIONAL TITLE, 1965, CURRENTLY, AND ESTIMATED NUMBER OF EMPLOYEES NEEDED DUE TO EXPANSION, TURNOVER, AND PROMOTION DURING THE NEXT FIVE YEARS IN METROPOLITAN OMAHA

Occupational Title	Current 1965 M	Current 1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Professional Occupations								
Florist	13	10	12	7	17	17	5	10
Landscape Architect	0	0	0	0	2	0	2	0
Landscape Salesman	0	0	3	0	5	0	2	0
Entomologist	0	0	0	0	0	0	0	0
Nurseryman	0	0	0	0	0	1	0	0
Plant Pathologist	0	0	0	0	0	0	0	0
Subtotals	13	10	15	7	24	18	7	10
Managerial Occupations								
Floral Shop Manager	6	1	8	0	8	0	0	0
Garden Center Manager	2	0	5	0	6	1	1	1
Greenhouse Manager	3	0	3	0	3	0	0	0
Grounds Manager	1	0	2	0	2	0	0	0
Landclearing Manager	0	0	0	0	0	0	0	0
Landscape Garden Manager	1	0	1	0	1	0	0	0
Nursery Manager	2	0	3	0	3	0	0	0
Tree Service Manager	5	0	6	0	7	0	1	0
Retail Sales Manager	0	0	0	0	0	0	0	0

TABLE 11 (continued)

Occupational Title	1965 M	1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Managerial Occupations (continued)								
Manager of Chemical and Fertilizer Department	3	0	4	0	3	0	-1	0
Nursery Stock and Trees Manager	0	0	0	0	0	0	0	0
Manager of Sodding Operation	3	0	4	0	5	0	1	0
Subtotals	26	1	36	0	38	0	2	0
Sales Occupations								
Floral Salesman	3	7	7	11	7	11	0	0
Garden Center Salesman	9	1	18	9	19	7	1	-2
Nursery Salesman	3	1	7	1	7	1	0	0
Sod Salesman	0	0	0	0	3	0	3	0
Landscape Salesman	1	0	1	0	2	0	1	0
Subtotals	16	9	33	21	38	19	5	-2
Supervisory Occupations								
Floral Shop Supervisor	1	0	1	0	1	0	0	0
Garden Center Supervisor	3	0	4	0	4	0	0	0
Greenhouse Foreman	1	0	2	0	3	0	1	0
Grounds Supervisor	2	0	4	0	4	0	0	0
Landscape Gardener	3	0	5	0	8	0	3	0
Municipal Park Supervisor	0	0	0	0	0	0	0	0
Nursery Foreman	2	0	3	0	4	0	1	0
Subtotals	12	0	19	0	24	0	5	0

TABLE 11 (continued)

Occupational Title	1965 M	1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Clerical Occupations								
Floral Shop Bookkeeper	0	3	1	2	1	2	0	0
Garden Center Bookkeeper	1	1	1	1	1	1	0	0
Greenhouse Bookkeeper	0	1	0	1	0	1	0	0
Nursery Bookkeeper	0	0	0	2	0	2	0	0
Tree Service Bookkeeper	0	1	0	0	0	0	0	0
Sodding Company Bookkeeper	0	2	0	3	0	3	0	0
Subtotals	1	8	2	9	2	9	0	0
Skilled Occupations								
Floral Designer	0	0	0	0	0	0	0	0
Florist	0	0	0	0	0	0	0	0
Greenhouse Grower	0	0	0	0	0	0	0	0
Grounds Equipment Operator	7	0	8	0	13	0	5	0
Groundskeeper	5	0	12	0	16	0	4	0
Horticulturalist	0	0	1	0	1	0	0	0
Landscape Worker	0	0	0	0	0	0	0	0
Nurseryman	1	1	2	1	4	1	2	0
Nursery Propagator	1	0	0	0	0	0	0	0
Greenhouse Propagator	0	0	0	0	0	0	0	0
Tree Pruner	3	0	4	0	7	0	3	0
Subtotals	17	1	27	1	41	1	14	0

TABLE 11 (continued)

Occupational Title	1965 M	1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Semi-Skilled Occupations								
Floral Shop Worker	0	2	0	3	0	5	0	2
Greenhouse Floral Shop Worker	0	0	0	0	0	0	0	0
Deliveryman	0	0	1	0	2	0	1	0
Greenhouse Worker	2	0	0	0	0	0	0	0
Groundskeeper	0	0	0	0	0	0	0	0
Nursery and Landscape Worker	17	0	24	0	35	0	11	0
Truck Driver	19	0	22	0	29	0	7	0
Tree Service Groundsman	2	0	4	0	13	0	9	0
Subtotals	40	2	51	3	79	5	28	2
Technical Occupations								
Floral Designer	16	6	17	20	26	21	9	1
Florist	0	0	0	0	0	0	0	0
Landscape Designer	0	0	0	0	0	0	0	0
Landscape Technician	0	0	0	0	0	0	0	0
Nurseryman	4	0	5	0	5	0	0	0
Subtotals	20	6	22	20	31	21	9	1
TOTALS	145	37	205	61	277	74		

Exhibit D

TABLE 12

BASIC DATA CONCERNING NUMBER OF PART-TIME MEN AND WOMEN EMPLOYEES NEEDING ORNAMENTAL HORTICULTURAL COMPETENCIES EMPLOYED IN 1965, CURRENTLY, AND ESTIMATED NUMBER OF EMPLOYEES NEEDED DUE TO EXPANSION, PROMOTION, AND TURNOVER DURING THE NEXT FIVE YEARS, BY MAIN ORNAMENTAL HORTICULTURAL PRODUCT OR SERVICE CATEGORY, IN METROPOLITAN OMAHA

Ornamental Horticultural Product or Service Category	Part-Time Employees Needing Ornamental Horticultural Competencies					
	1965		Current 1970		1975	
	M	W	M	W	M	W
Retail Florist	1	8	2	11	4	23
Wholesale Florist	3	0	3	2	5	2
Landscape Service	1	0	1	0	4	0
Golf Course	2	0	7	0	10	0
Tree Service	11	0	14	0	16	0
Retail Vendor of Nursery Stock	13	5	24	7	28	9
Nurseryman	18	6	34	6	40	6
TOTALS	49	19	85	26	107	40

Exhibit E

TABLE 13

BASIC DATA CONCERNING NUMBER OF PART-TIME EMPLOYEES IN ORNAMENTAL HORTICULTURAL BUSINESSES NEEDING ORNAMENTAL HORTICULTURAL COMPETENCIES BY OCCUPATIONAL TITLE, 1965, CURRENTLY, AND ESTIMATED NUMBER OF EMPLOYEES NEEDED DUE TO EXPANSION, TURNOVER, AND PROMOTION DURING THE NEXT FIVE YEARS IN METROPOLITAN OMAHA

Occupational Title	1965		Current 1970		1975		Needed	
	M	W	M	W	M	W	M	W
Professional Occupations								
Florist	0	0	0	0	3	5	3	5
Landscape Architect	0	0	0	0	0	0	0	0
Landscape Salesman	0	0	0	0	0	0	0	0
Entomologist	0	0	0	0	0	0	0	0
Nurseryman	0	0	0	0	1	0	1	0
Plant Pathologist	0	0	0	0	0	0	0	0
Subtotals	0	0	0	0	4	5	4	5
Managerial Occupations								
Floral Shop Manager	0	0	0	0	0	0	0	0
Garden Center Manager	0	0	0	0	1	0	1	0
Greenhouse Manager	0	0	0	0	0	0	0	0
Grounds Manager	0	0	0	0	0	0	0	0
Landclearing Manager	0	0	0	0	0	0	0	0
Landscape Garden Manager	0	0	0	0	0	0	0	0
Nursery Manager	0	0	0	0	0	0	0	0
Tree Service Manager	3	0	3	0	3	0	0	0
Retail Sales Manager	0	0	0	0	0	0	0	0

TABLE 13 (continued)

Occupational Title	1965 M	1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Managerial Occupations (continued)								
Manager of Chemical and Fertilizer Department	0	0	0	0	0	0	0	0
Nursery Stock and Trees Manager	0	0	0	0	0	0	0	0
Manager of Sodding Operation	0	0	0	0	0	0	0	0
Subtotals	3	0	3	0	4	0	1	0
Sales Occupations								
Floral Salesman	0	0	3	4	4	4	1	0
Garden Center Salesman	8	2	14	4	12	6	-2	2
Nursery Salesman	5	3	7	3	9	3	2	0
Sod Salesman	0	0	0	0	0	0	0	0
Landscape Salesman	0	0	0	0	0	0	0	0
Subtotals	13	5	24	11	25	13	1	2
Supervisory Occupations								
Floral Shop Supervisor	0	0	0	0	0	0	0	0
Garden Center Supervisor	0	0	0	0	0	0	0	0
Greenhouse Foreman	0	0	0	0	0	0	0	0
Grounds Supervisor	0	0	0	0	0	0	0	0
Landscape Gardener	0	0	0	0	0	0	0	0
Municipal Park Supervisor	0	0	0	0	0	0	0	0
Nursery Foreman	0	0	0	0	0	0	0	0
Subtotals	0	0	0	0	0	0	0	0

TABLE 13 (continued)

Occupational Title	1965 M	1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Clerical Occupations								
Floral Shop Bookkeeper	0	0	0	0	0	0	0	0
Garden Center Bookkeeper	0	0	0	0	0	0	0	0
Greenhouse Bookkeeper	0	0	0	0	0	0	0	0
Nursery Bookkeeper	0	0	0	0	0	0	0	0
Tree Service Bookkeeper	1	0	1	0	1	0	0	0
Sodding Company Bookkeeper	0	0	0	0	0	0	0	0
Subtotals	1	0	1	0	1	0	0	0
Skilled Occupations								
Floral Designer	0	0	0	0	0	0	0	0
Florist	0	0	0	0	0	0	0	0
Greenhouse Grower	0	0	0	0	0	0	0	0
Grounds Equipment Operator	3	0	8	0	12	0	4	0
Groundskeeper	0	0	0	0	0	0	0	0
Horticulturalist	1	1	1	1	1	1	0	0
Landscape Worker	0	0	0	0	0	0	0	0
Nurseryman	0	0	0	0	0	0	0	0
Nursery Propagator	0	6	0	6	0	6	0	0
Greenhouse Propagator	0	0	0	0	0	0	0	0
Tree Pruner	4	0	5	0	7	0	2	0
Subtotals	8	7	14	7	20	7	6	0

TABLE 13 (continued)

Occupational Title	1965 M	1965 W	Current 1970 M	Current 1970 W	1975 M	1975 W	Needed M	Needed W
Semi-Skilled Occupations								
Floral Shop Worker	0	1	0	1	0	1	0	0
Greenhouse Floral Shop Worker	0	0	0	0	0	0	0	0
Deliveryman	0	0	0	0	0	0	0	0
Greenhouse Worker	3	0	3	0	5	0	2	0
Groundskeeper	0	0	0	0	0	0	0	0
Nursery and Landscape Worker	17	0	33	0	42	0	9	0
Truck Driver	1	0	1	0	1	0	0	0
Tree Service Groundsman	2	0	4	0	4	0	0	0
Subtotals	23	1	41	1	52	1	11	0
Technical Occupations								
Floral Designer	1	6	2	7	2	14	0	7
Florist	0	0	0	0	0	0	0	0
Landscape Designer	0	0	0	0	0	0	0	0
Landscape Technician	0	0	0	0	0	0	0	0
Nurseryman	0	0	0	0	0	0	0	0
Subtotals	1	6	2	7	2	14	0	7
TOTALS	49	19	85	26	108	40	23	14

Exhibit F

TABLE 14

BASIC DATA CONCERNING AGES OF PRESENT EMPLOYERS AND EMPLOYEES BY OCCUPATIONAL TITLE

Occupational Title	Numbers of Present Employers and Employees by Age Category				
	15-20 Years	21-35 Years	36-45 Years	46-60 Years	61+ Years
Professional Occupations					
Florist	0	5	5	7	2
Landscape Architect	0	0	0	0	0
Landscape Salesman	0	3	0	0	0
Entomologist	0	0	0	0	0
Nurseryman	0	0	0	0	0
Plant Pathologist	0	0	0	0	0
Subtotals	0	8	5	7	2
Managerial Occupations					
Floral Shop Manager	0	0	3	4	1
Garden Center Manager	0	3	0	2	0
Greenhouse Manager	0	0	1	2	0
Grounds Manager	1	0	1	0	0
Landclearing Manager	0	0	0	0	0
Landscape Garden Manager	0	0	0	1	0
Nursery Manager	0	0	1	1	1
Tree Service Manager	0	2	3	3	1
Retail Sales Manager	0	0	0	0	0
Manager of Chemical and Fertilizer Department	0	0	4	0	0

TABLE 14 (continued)

Occupational Title	Numbers of Present Employers and Employees by Age Category 15-20 Years	21-35 Years	36-45 Years	46-60 Years	61+ Years
Managerial Occupations (continued)					
Nursery Stock and Tree Manager	0	0	0	0	0
Manager of Sodding Operation	0	0	3	1	0
Subtotals	1	5	16	14	3
Sales Occupations					
Floral Salesman	3	4	12	5	1
Garden Center Salesman	6	22	11	4	1
Nursery Salesman	10	8	0	0	0
Sod Salesman	0	0	0	0	0
Landscape Salesman	0	0	1	0	0
Subtotals	19	34	24	9	2
Supervisory Occupations					
Floral Shop Supervisor	0	0	0	1	0
Garden Center Supervisor	0	1	1	2	0
Greenhouse Foreman	0	0	2	0	0
Grounds Supervisor	0	0	2	2	0
Landscape Gardener	0	3	2	0	0
Municipal Park Supervisor	0	0	0	0	0
Nursery Foreman	0	0	2	1	0
Subtotals	0	4	9	6	0

TABLE 14 (continued)

Occupational Title	Numbers of Present Employers and Employees by Age Category				
	15-20 Years	21-35 Years	36-45 Years	46-60 Years	61+ Years
Clerical Occupations					
Floral Shop Bookkeeper	0	0	1	2	0
Garden Center Bookkeeper	0	0	1	1	0
Greenhouse Bookkeeper	0	0	0	1	0
Nursery Bookkeeper	0	0	0	2	0
Tree Service Bookkeeper	0	0	1	0	0
Sodding Company Bookkeeper	0	2	0	0	1
Subtotals	0	2	3	6	1
Skilled Occupations					
Floral Designer	0	0	0	0	0
Florist	0	0	0	0	0
Greenhouse Grower	0	0	0	0	0
Grounds Equipment Operator	6	3	2	0	1
Groundskeeper	4	0	7	0	1
Horticulturalist	0	1	1	1	0
Landscape Worker	0	0	0	0	0
Nurseryman	0	1	1	0	1
Nursery Propagator	0	0	4	2	0
Greenhouse Propagator	0	0	0	0	0
Tree Pruner	0	3	5	0	0
Subtotals	10	8	20	3	3

TABLE 14 (continued)

Occupational Title	Numbers of Present Employers and Employees by Age Category				
	15-20 Years	21-35 Years	36-45 Years	46-60 Years	61+ Years
Semi-Skilled Occupations					
Floral Shop Worker	0	0	2	2	0
Greenhouse Floral Shop Worker	0	0	0	0	0
Deliveryman	0	1	0	0	0
Greenhouse Worker	0	1	2	0	0
Groundskeeper	0	0	0	0	0
Nursery and Landscape Worker	40	10	0	6	1
Truck Driver	0	16	4	1	0
Tree Service Groundsman	0	4	3	1	0
Subtotals	40	32	11	10	1
Technical Occupations					
Floral Designer	0	11	18	12	3
Florist	0	0	0	0	0
Landscape Designer	0	0	0	0	0
Landscape Technician	0	0	0	0	0
Nurseryman	0	3	0	1	1
Subtotals	0	14	18	13	4
TOTALS	70	107	106	68	16

TABLE 15

BASIC DATA CONCERNING MINIMUM EDUCATIONAL LEVEL NEEDED FOR NEW EMPLOYEES IN THE ORNAMENTAL HORTICULTURAL INDUSTRY IN OMAHA, NEBRASKA, BY OCCUPATIONAL TITLE, AS INDICATED BY EMPLOYERS

Occupational Title	Employee Educational Levels				
	Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Professional Occupations					
Florist	0	2	2	3	3
Landscape Architect	0	0	0	0	0
Landscape Salesman	0	1	0	0	0
Entomologist	0	0	0	0	0
Nurseryman	0	2	0	0	0
Plant Pathologist	0	0	0	0	0
Subtotals	0	5	2	3	3

TABLE 15 (continued)

Occupational Title	Employee Educational Levels				
	Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Managerial Occupations					
Floral Shop Manager	0	2	3	3	0
Garden Center Manager	0	2	0	1	1
Greenhouse Manager	0	2	0	0	2
Grounds Manager	0	1	0	0	0
Landclearing Manager	0	0	0	0	0
Landscape Garden Manager	0	1	0	0	0
Nursery Manager	0	1	0	1	0
Tree Service Manager	0	3	2	3	1
Retail Sales Manager	0	0	0	0	0
Manager of Chemical and Fertilizer Department	0	1	0	1	0
Nursery Stock and Tree Manager	0	0	0	0	0
Manager of Sodding Operations	0	1	0	1	0
Subtotals	0	14	5	10	4

TABLE 15 (continued)

Occupational Title	Employee Educational Levels				
	Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Sales Occupations					
Floral Salesman	0	4	0	1	0
Garden Center Salesman	0	10	2	1	0
Nursery Salesman	0	4	2	0	0
Sod Salesman	0	0	0	0	0
Landscape Salesman	0	0	0	1	0
Subtotals	0	18	4	3	0
Supervisory Occupations					
Floral Shop Supervisor	0	0	1	0	0
Garden Center Supervisor	0	1	1	2	0
Greenhouse Foreman	0	0	1	0	0
Grounds Supervisor	0	2	0	1	0

TABLE 15 (continued)

Occupational Title	Employee Educational Levels: Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Supervisory Occupations (continued)					
Landscape Gardener	0	2	0	0	0
Municipal Park Supervisor	0	0	0	0	0
Nursery Foreman	0	0	1	0	0
Subtotals	0	5	4	3	0
Clerical Occupations					
Floral Shop Bookkeeper	0	2	0	1	0
Garden Center Bookkeeper	0	2	0	0	0
Greenhouse Bookkeeper	0	1	0	0	0
Nursery Bookkeeper	0	2	0	0	0
Tree Service Bookkeeper	0	1	0	0	0
Sodding Company Bookkeeper	0	2	0	0	0
Subtotals	0	10	0	1	0

TABLE 15 (continued)

Occupational Title	Employee Educational Levels				
	Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Skilled Occupations					
Floral Designer	0	0	0	0	0
Florist	0	0	0	0	0
Greenhouse Grower	0	0	0	0	0
Grounds Equipment Operator	0	4	0	0	0
Groundskeeper	0	3	0	0	0
Horticulturalist	0	3	0	0	0
Landscape Worker	0	0	0	0	0
Nurseryman	0	2	0	0	0
Nursery Propagator	1	0	1	0	0
Greenhouse Propagator	0	0	0	0	0
Tree Pruner	0	4	1	0	0
Subtotals	1	16	2	0	0

TABLE 15 (continued)

Occupational Title	Employee Educational Levels: Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Semi-Skilled Occupations					
Floral Shop Worker	0	1	2	0	0
Greenhouse Floral Shop Worker	0	0	0	0	0
Deliveryman	0	1	0	0	0
Greenhouse Worker	0	0	1	0	0
Groundskeeper	0	0	0	0	0
Nursery and Landscape Worker	1	5	0	0	0
Truck Driver	0	15	0	0	0
Tree Service Groundsman	0	2	1	0	0
Subtotals	1	24	4	0	0

TABLE 15 (continued)

Occupational Title	Employee Educational Levels				
	Less than High School Graduate	High School Graduate	Post-High School Vocational Training	Some College	College Graduate
Technical Occupations					
Floral Designer	0	2	10	0	0
Florist	0	0	0	0	0
Landscape Designer	0	0	0	0	0
Landscape Technician	0	0	0	0	0
Nurseryman	0	2	1	0	0
Subtotals	0	4	11	0	0